

## **Supplemental Methods**

### **Cell lines and culture conditions**

DLBCL cell lines OCI-LY1 and SUDHL2 were cultured in Iscove's Modified Dulbecco's Medium (IMDM) supplemented with 20% Fetal Bovine Serum (FBS) and 100 µg/mL penicillin/streptomycin. SUDHL6, SUDHL8, SUDHL10, Karpas-422, DB were cultured in Roswell Park Memorial Institute (RPMI) 1640 supplemented with 20% Fetal Bovine Serum (FBS) and 100 µg/mL penicillin/streptomycin. All cells were maintained in a humidified 37°C/5% CO<sub>2</sub> incubator.

### **Cell proliferation assay**

Cell proliferation was analyzed using a Cell Counting Kit-8 (YEASEN, P.R.China). Briefly, the cells were seeded onto 96-well plates at a density of 5000 cells per well. Ten microliters of CCK-8 was added to each well at 24 h, 48 h or 72 h, respectively, and incubated at 37 °C for 4h. Subsequently, the absorbance of live cells was measured at 450 nm using a microplate reader.

### **Annexin V APC/ 7AAD apoptosis detection assay**

Detection of apoptosis was performed using the Annexin V-APC Apoptosis Detection Kit II (BD Bioscience, San Jose, CA) according to manufacturer's protocol.

### **Cell cycle assay**

The cell cycle assay was performed using APC BrDU Kit (BD Biosciences, San Jose,

CA, USA) according to the manufacturer's instructions.

### **RNA isolation and Real-time PCR**

Total RNA from mice tumor tissue and cell samples was extracted using TRIzol Reagent (TIANGEN, Beijing, P.R.China). NanoDrop was used to measure RNA quality and quantity. One microgram of total RNA was then reverse-transcribed using FastKing gDNA Dispelling RT SuperMix (TIANGEN, Beijing, P.R.China). Real-time analysis was then performed using the SYBR green master mix with sequence-specific predesigned primers (Takara, Shiga, Japan). For quantitative analysis, target gene values were normalized to GAPDH or 18S gene expression using the  $\Delta\Delta CT$  value method. Primer sequences are listed in the Supplemental Methods.

### **CHIP-Seq and data processing**

Sequencing library was prepared by converting 10 ng DNA of each sample to phosphorylated blunt-end fragment. An 'A' base was added to the 3' end of the blunt phosphorylated DNA fragments, and Illumina's genomic adapters were ligated to the A tailed DNA fragments prior to subject to PCR amplification to enrich ligated fragments. The enriched product of ~200-1500 bp was size selected using AMPure XP beads. The library was denatured with 0.1M NaOH to generate single-stranded DNA molecules, and loaded onto channels of the flow cell at 8pM concentration, amplified in situ using Cluster Kit. Sequencing was carried out by running 2×150

cycles on Illumina NovaSeq 6000 according to the manufacturer's instructions. After the sequencing platform generated the sequencing images, the stages of image analysis and base calling were performed using Off-Line Basecaller software (OLB V1.8). Sequence quality was examined using the FastQC software. After passing Solexa CHASTITY quality filter, the clean reads were aligned to human reference genome UCSC HG19 using BOWTIE (V2.1.0). Aligned reads were used for peak calling of the ChIP regions using MACS V1.4.2. Statistically significant ChIP-enriched regions (peaks) were identified by comparison of IP vs Input or comparison to a Poisson background model, using a p-value threshold of  $10^{-4}$ . The EXCEL/BED format file containing the ChIP-enriched regions was generated for each comparison. The peaks were annotated by the nearest gene using the newest UCSC RefSeq database.

### **ChIP Assay**

A Pierce Agarose ChIP Kit was purchased from Cell signaling Technology (Danvers, MA, USA). Cells were cross-linked with 1% formaldehyde for 10 minutes at room temperature and terminated by adding glycine (1.25 M). Fixed cells were harvested in SDS buffer with a protease inhibitor and then sonicated to generate DNA fragments of 200–1000 base pairs (bp) in length. The sheared chromatin-lysed extracts were incubated overnight at 4 °C with the anti-SOX9 antibody or control IgG with rotation. After immunoprecipitation (IP) of the cross-linked protein/DNA, the immunocomplexes were reversed to free DNA. PCR was performed with the input DNA or the

immunoprecipitates products. The PCR products were then separated by agarose gel electrophoresis.

### **Cholesterol quantitation assay**

The concentration of cholesterol was measured by Cholesterol/Cholesteryl Ester Quantitation Assay kit (Abcam, MA, USA). In brief,  $1 \times 10^6$  of DLBCL cells or 10mg of mice tumor tissues with indicated treatment were centrifuged and the pellet was re-suspended in 200  $\mu$ l of Chloroform:Isopropanol:NP-40 (7:11:0.1) solution using a micro homogenizer. The liquid in organic phase was then taken out and transferred into a new eppendorf tube after spinning at 15,000 g for 10 min followed by air dry at 50 °C, and vacuumed for 30 min. The dried lipids were re-dissolved in 200  $\mu$ l kit provided assay buffer using sonicator and vortex mixer according to instruction manual. After addition of either cholesterol assay buffer, cholesterol probe, cholesterol enzyme mix or cholesterol esterase, the OD value of each sample was measured by spectrophotometer ( $\lambda = 570$  nm).

### **Plasmids construction and dual-luciferase reporter assay**

DHCR24 promoter-luciferase reporter plasmids containing the DHCR24 promoter region were constructed in the pGL3 plasmid. Wild-type and mutants DHCR24 promoter luciferase constructs were verified by DNA sequencing. A dual luciferase reporter assay (Promega, WI, USA) was performed according to the manufacturer's instructions.

## **Animal studies**

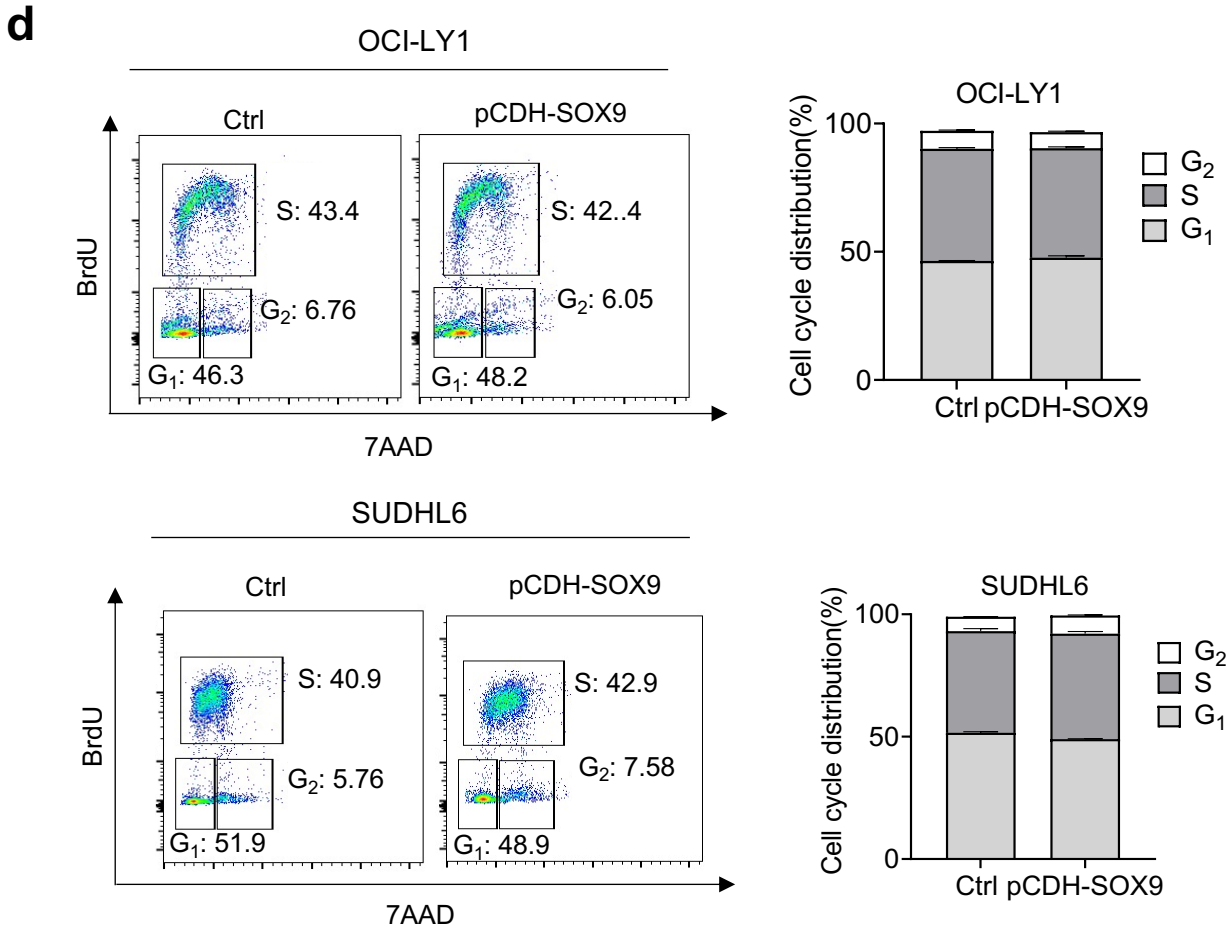
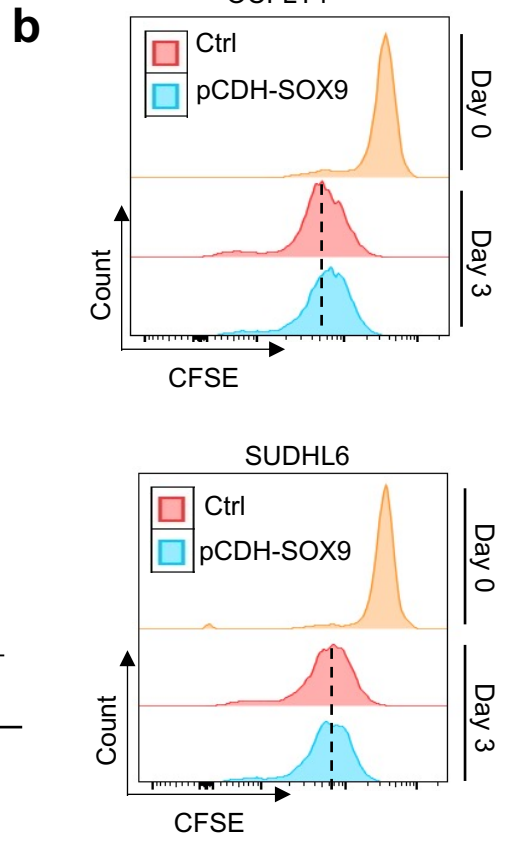
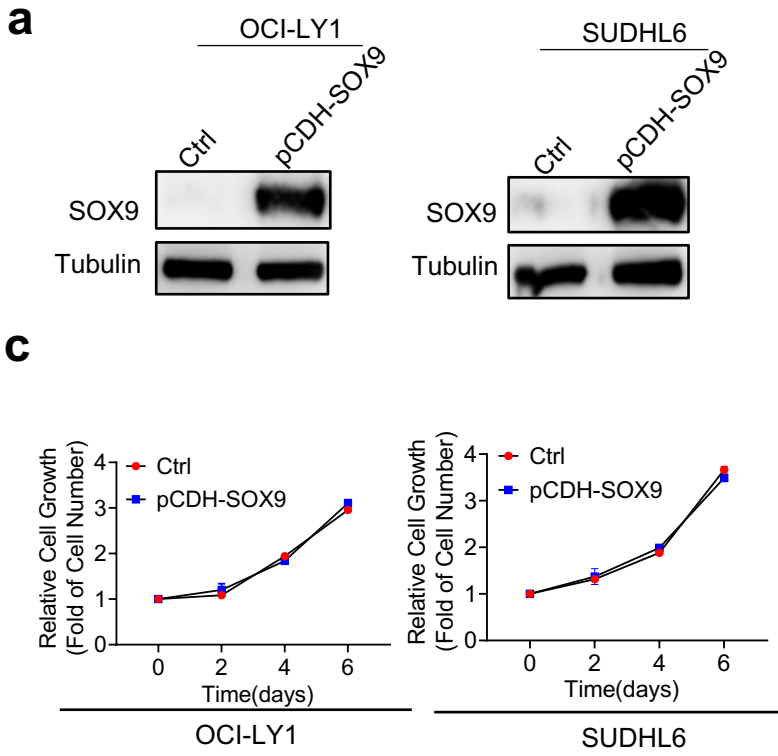
All experiments were performed under an Institutional Animal Care and Use Committee-approved protocol of Shanghai Jiaotong University School of Medicine, and guidelines for the proper use of animals in research and animal welfare were followed. 6-8 weeks old female nude mice were purchased from Shanghai Ling Chang Biotechnology Co (Shanghai, China). Karpas-422-shSOX9, parental Karpas-422 and SUDHL8 xenografts mice were established in the flanks of 6-weeks-old female nude mice by injecting approximately 10 million cells in 50% Matrigel. Mice bearing established xenografts (tumor volume, 100–200 mm<sup>3</sup>) were randomized into control or drugs treatment groups, and treated either with or without i.p. injections of 10mg/kg U18666A (every two days) at every other day for 7 days, or 10 mg/kg simvastatin with oral administration at every other day for 7 days. Tumor sizes were determined three times a week by directly measuring tumor with a caliper. Tumor volumes were calculated using the formula: length × width × width/2. The fold change of tumor volume was determined by normalizing each tumor measurement to its volume on day 0 at the beginning of drug administration.

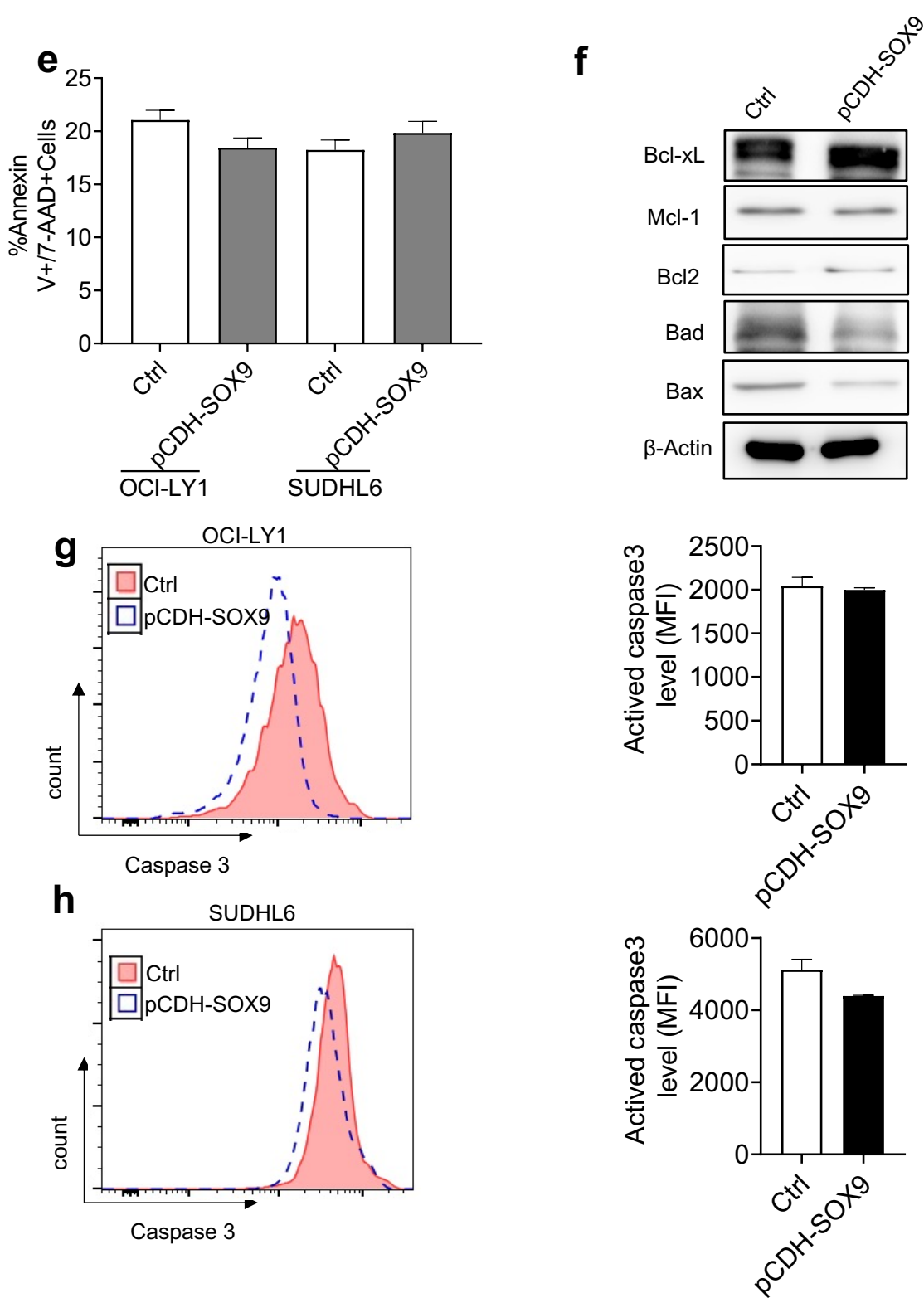
## **Statistical analyses**

Two-sided Student's t test was used to compare differences between two groups. Data are presented as means ± SD and p%0.05 was considered as statistical significant. Two-way Analysis of variance (ANOVA) was used on assays involving at

least three groups for comparison. The association between SOX9 and categorical variable was tested by Fisher's exact test. Progression-free Survival (PFS) time was calculated from date of treatment to date of progression or date of last follow-up, whichever comes first. Kaplan-Meier estimator was used to estimate survival probability. Survival difference between groups was tested by log-rank test for statistical significance. Confidence interval of survival rate was calculated by Greenwood's formula. All statistical tests were two-sided with an alpha level of 0.05 as the significance cutoff. All analyses were performed in statistical software SAS Version 9.4 (SAS Institute, Cary, NC).

# Supplemental Figure 1

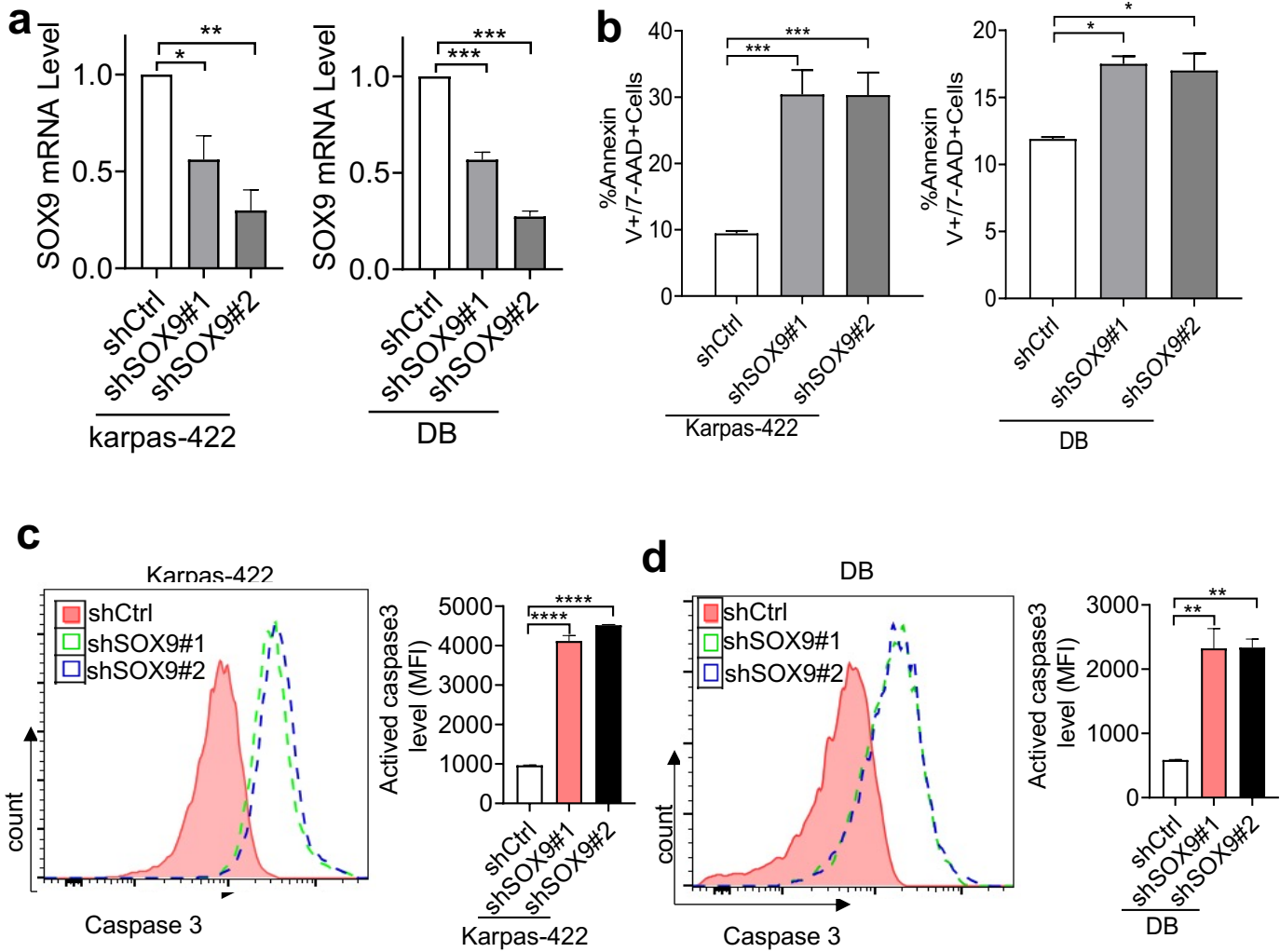




**Supplemental Figure 1. Overexpression of SOX9 has no significant impacts on DLBCL cells.** (a) Immunoblotting of SOX9 overexpression efficiency. (b) CFSE proliferation assay (c) hemocytometer counts of cell numbers were determined in lentiviral encoding pCDH-SOX9 overexpressing OCI-LY1 and SUDHL6 cells. (d) OCI-LY1 cells or SUDHL6 cells transduced with lentiviral encoding pCDH-SOX9 were exposed to BrdU for 4 h prior to subject to flow cytometry analysis of cell cycle. Quantitation of percentage of cell cycle distribution was determined by gating of live cells in either G<sub>1</sub> (light grey bar), S (dark grey bar) or G<sub>2</sub> (white bar) phases. (e) Annexin V/7ADD apoptosis assay in OCI-LY1 cells or SUDHL6 cells transduced with lentiviral encoding pCDH-SOX9. (f) Immunoblotting assay of expressions of Bcl-xL, Mcl-1, Bcl-2, Bad and Bax proteins. Flow cytometry determine of caspase 3 activity (shift & MFI) in (g) OCI-LY1 cells or in (h) SUDHL6 cells transduced with lentiviral encoding pCDH-SOX9 (dashed line). Scramble control was included as a negative control (shaded area).  $\beta$ -Actin was included as a control for equal loading. Data in (a)-(h) represent the mean  $\pm$  SD from technical triplicates.

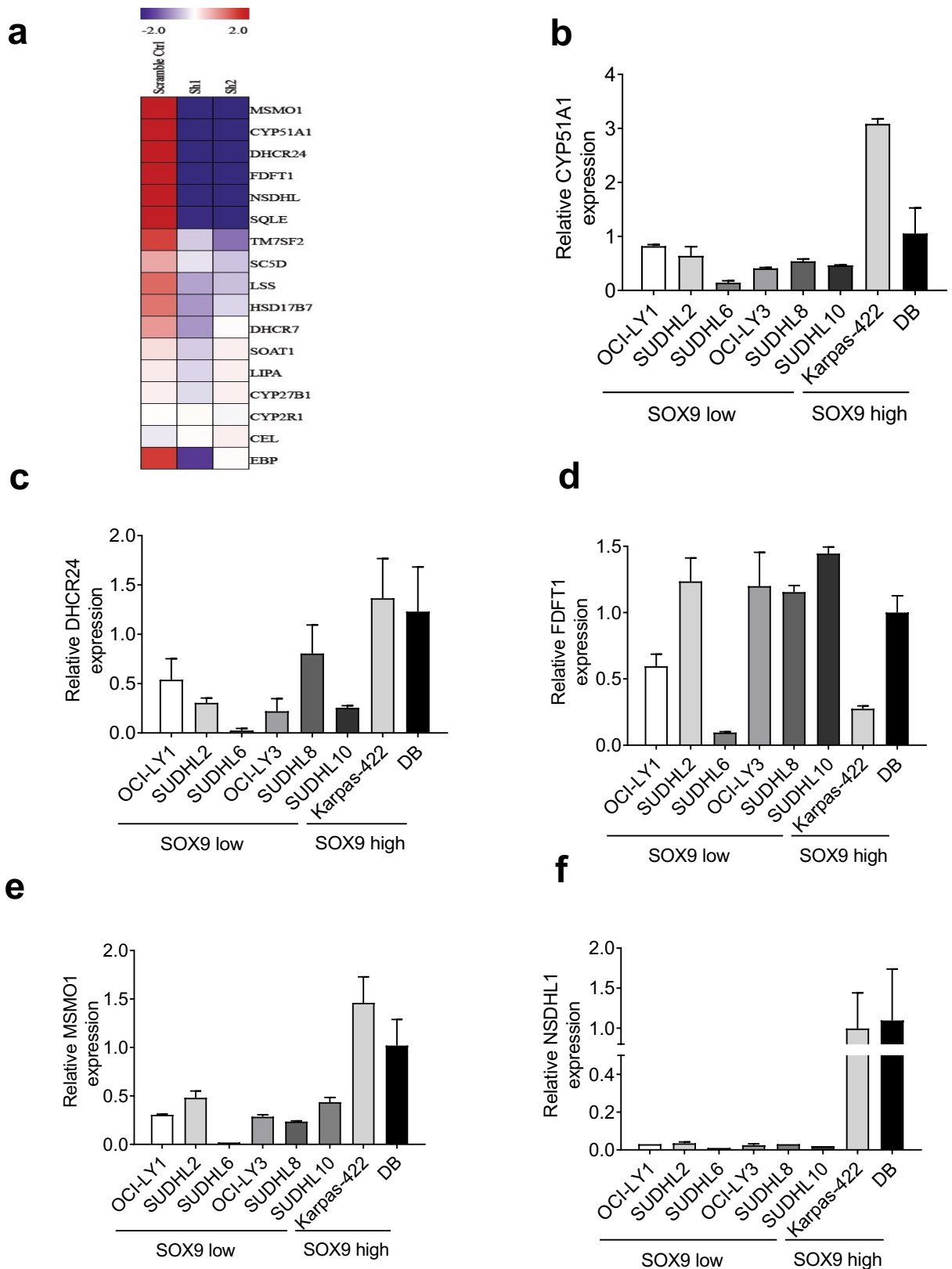


## Supplemental Figure 2



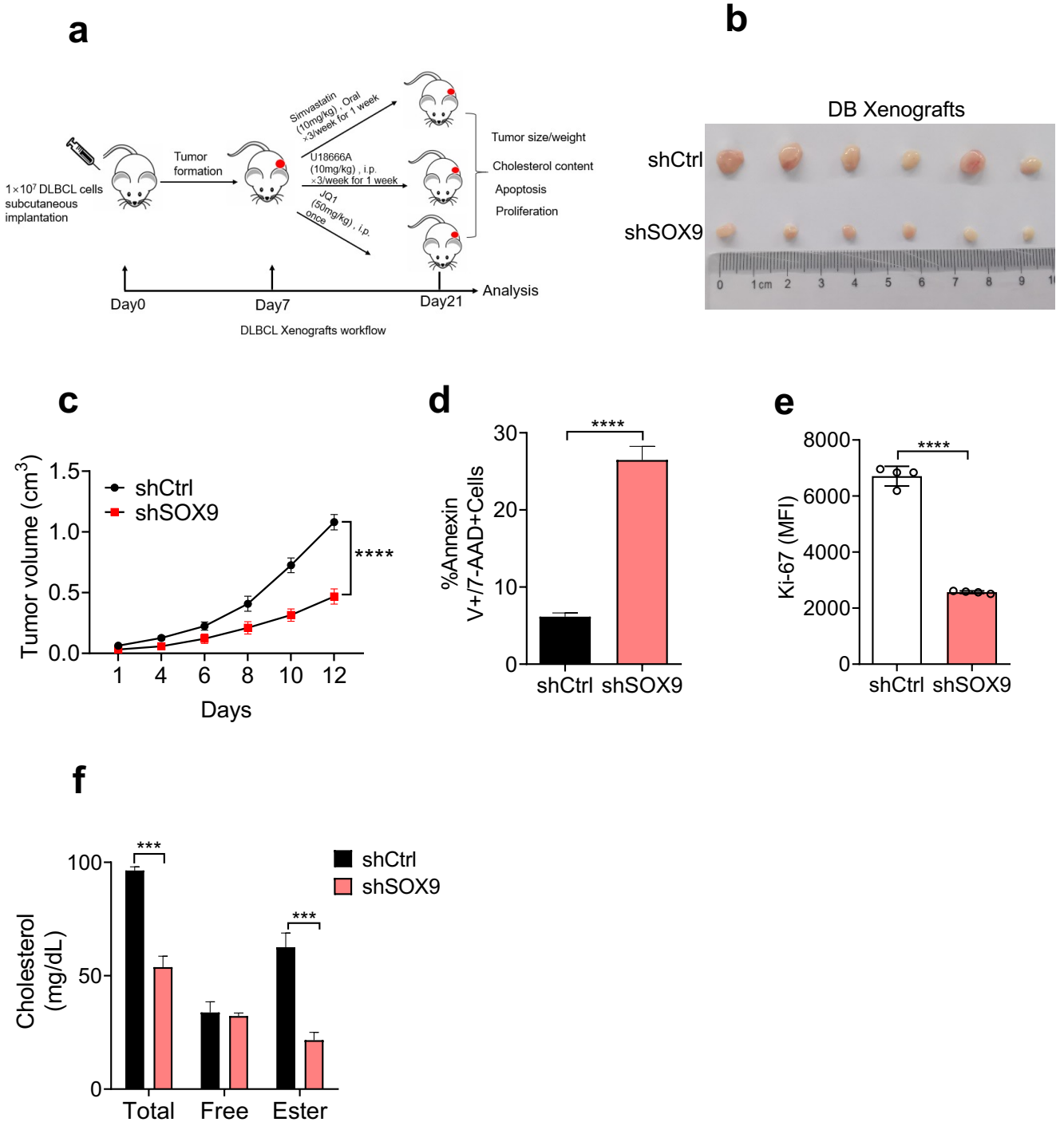
**Supplemental Figure 2. Knockdown of SOX9 impairs DLBCL cell survival.** (a) Real-time PCR analysis of SOX9 mRNA level in Karpas-422 and DB cells upon shRNA treatment. (b) Annexin V/7ADD apoptosis assay in lentiviral encoding SOX9 shRNAs overexpressing Karpas-422 cells and DB cells. Flow cytometry determine of caspase 3 activity (shift & MFI) in shSOX9#1 (green dashed line), shSOX9#2 (blue dashed line) transduced (c) Karpas-422 cells or (d) DB cells. Scramble control was included as a negative control (shaded area). Data in (a)-(d) represent the mean  $\pm$  SD from technical triplicates. (\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\*  $p < 0.005$ ).

# Supplemental Figure 3



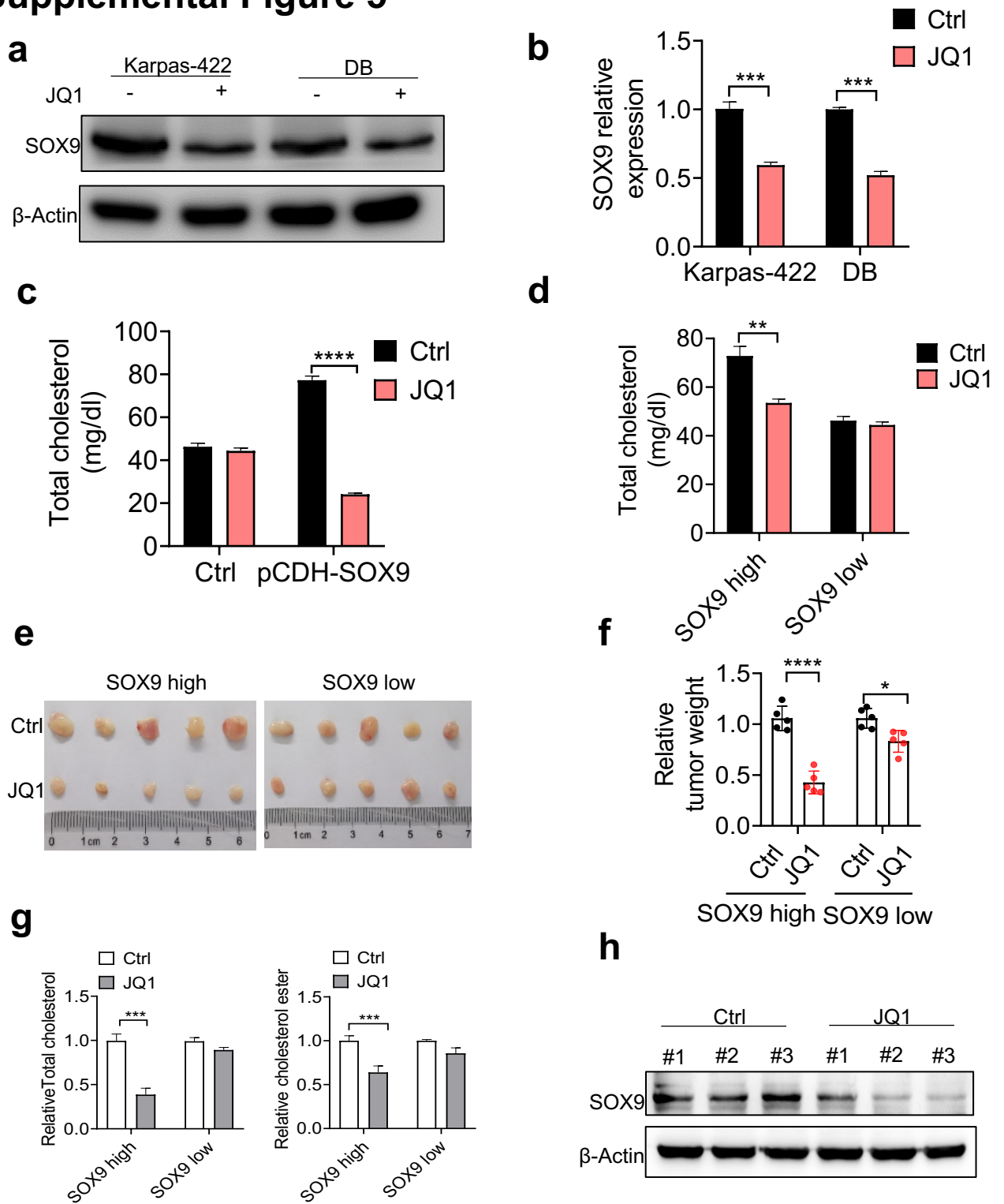
**Supplemental Figure 3. cholesterol biosynthesis targeted genes were upregulated in SOX9 high DLBCL cells.** (a) Heat map comparison of expressions of steroid biosynthesis-related genes in SOX9 deficient Karpas-422 cells compared to scramble control. qRT-PCR validation of expressions of (b) CYP51A1, (c) DHCR24, (d) FDFT1, (e) MSMO1 and (f) NSDHL1 relative expressions in SOX9 low and SOX9 high DLBCL cells. Data in (a)-(f) represent the mean  $\pm$  SD from technical triplicates.

# Supplemental Figure 4



**Supplemental Figure 4. Silence of SOX9 inhibits tumor growth and cholesterol biosynthesis in DB xenografts.** (a) Schematic representation of DLBCL xenografted mouse model and procedure for drug treatment. (b) tumor size (c) tumor volume (d) apoptosis (e) cell proliferation and (f) cholesterol content were determined in SOX9 deficient DB xenografts (n=5). Data in (b)-(f) represent the mean  $\pm$  SD from technical triplicates (\*\*p<0.001; \*\*\*\*p<0.005).

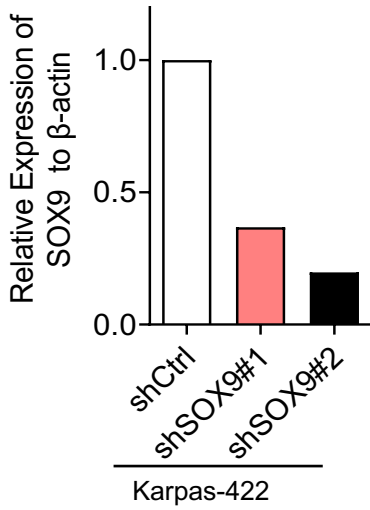
# Supplemental Figure 5



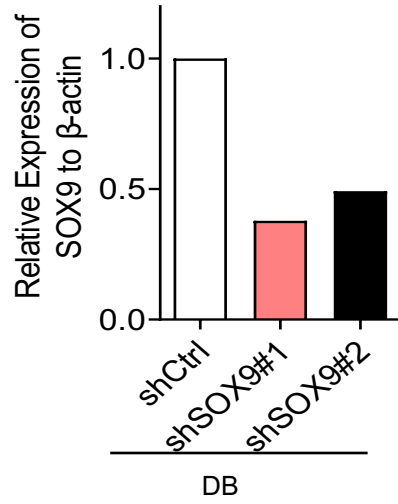
**Supplemental Figure 5. JQ1 inhibits DLBCL tumor growth and cholesterol biosynthesis in a SOX9 dependent manner *in vitro* and *in vivo*.** (a) Immunoblotting assay or (b) Real-time PCR analysis of SOX9 protein expression or mRNA level in Karpas-422 and DB cells either treated with JQ1 or vehicle control at 48 h time point. Cholesterol content were measured in (c) OCI-LY1 cells transduced with lentiviral encoding pCDH-SOX9 or in (d) SOX9 high (Karpas-422) and SOX9 low (SUDHL6) cells were treated either with JQ1 (0.5  $\mu$ M) or with vehicle control at 48 h time point. Ten millions of DLBCL cells harboring a high level of SOX9 (Karpas-422) or a low level of SOX9 (SUDHL6) were subcutaneously injected into each nude mouse (n=5). Meanwhile, 50 mg/kg JQ1 was intraperitoneal injected into above mentioned DLBCL xenografted mice. Three weeks post transplantation and drug administration, mice were sacrificed and (e) tumor size, (f) relative tumor weight as well as (g) relative cholesterol contents were measured in these mice. (h) SOX9 high cell line (Karpas-422) xenografted mice were either treated with JQ1(50 mg/kg) or vehicle control as described above prior to subject to immunoblotting assay of SOX9 protein expression.  $\beta$ -Actin was included as a control for equal loading. Data in (a)-(h) represent the mean  $\pm$  SD from technical triplicates (\*p<0.05; \*\*\*p<0.001, \*\*\*\*p<0.005).

# Supplemental Figure 6

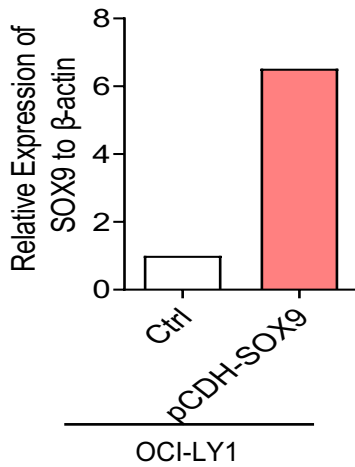
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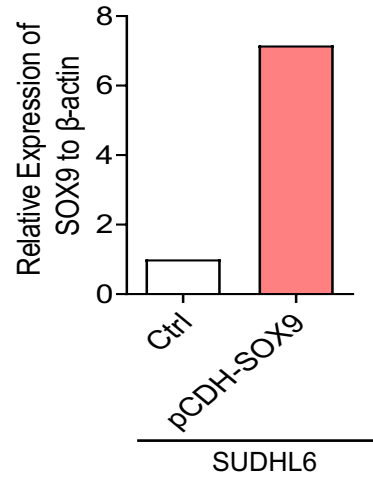
**b**



**c**

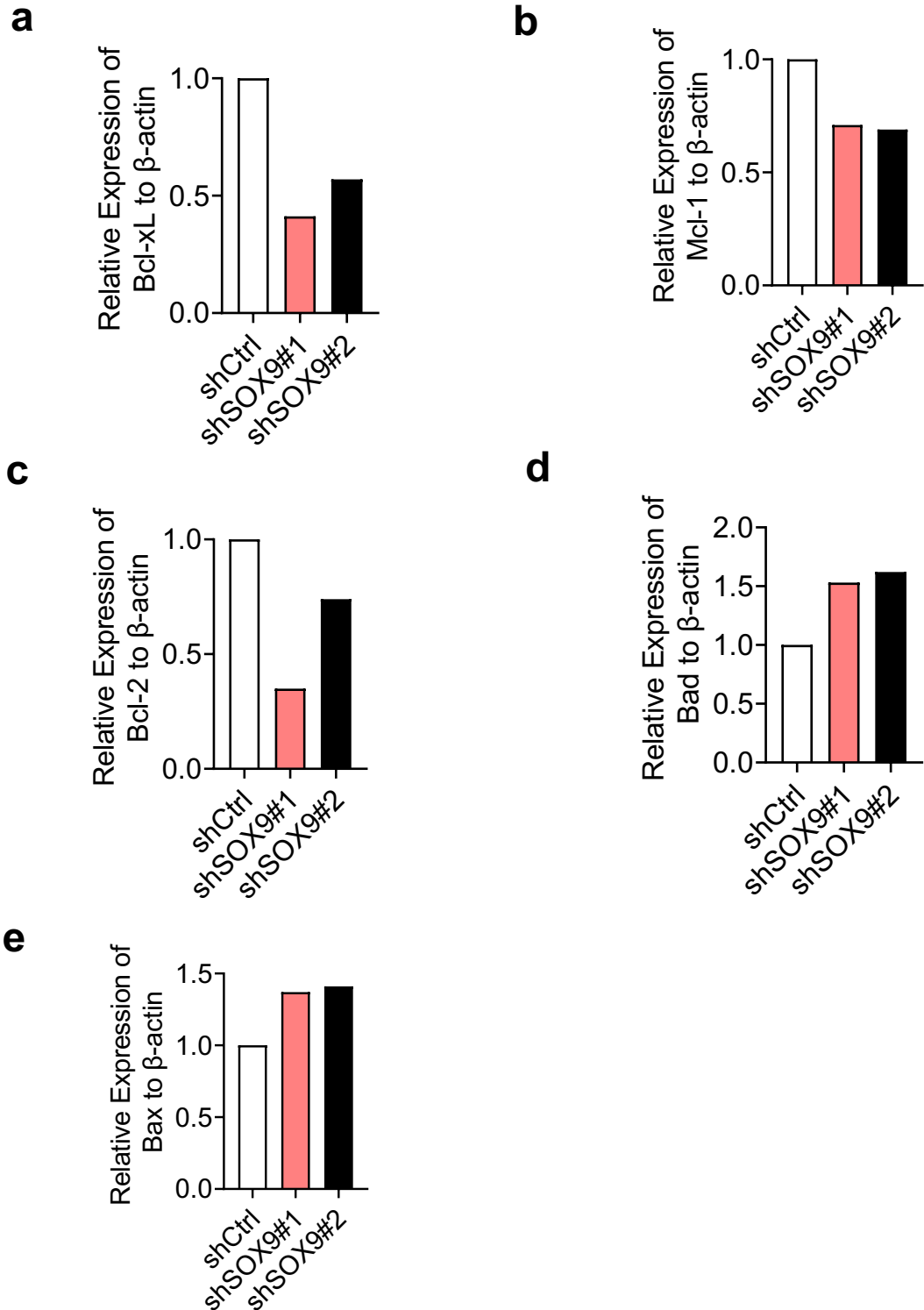


**d**



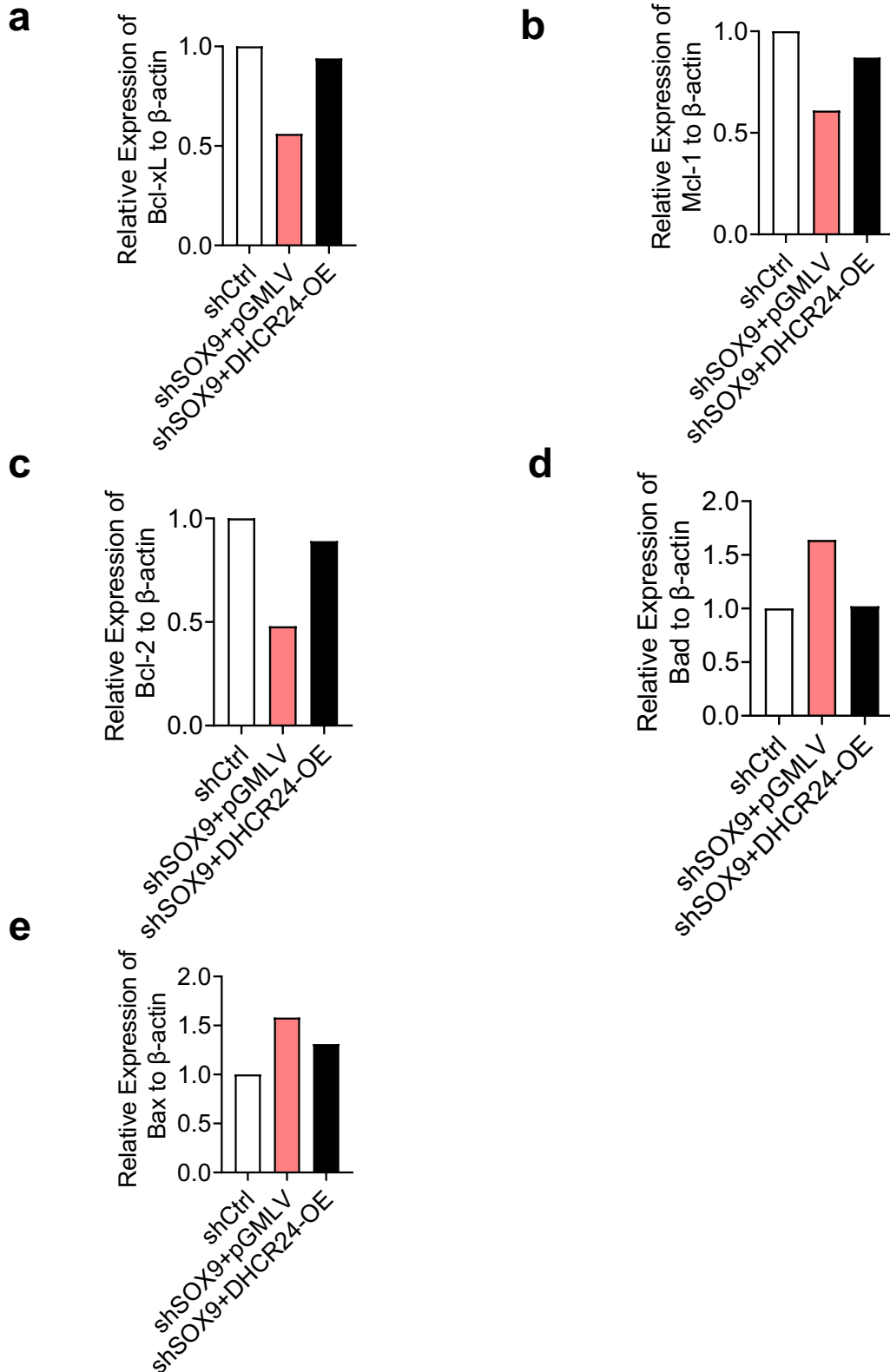
**Supplemental Figure 6. Densitometry quantitation of Figure 2a & Supplemental Figure 1a.** Immunoblotting assay of SOX9 protein expression in Karpas-422, DB, lentiviral encoding pCDH-SOX9 transduced OCI-LY1 or SUDHL6 cells was performed as previously described. Bands intensities were measured using Image J software and relative expressions of (a)-(d) SOX9 were determined in aforementioned cells. Scramble control or vector controls were denoted as 1.

## Supplemental Figure 7



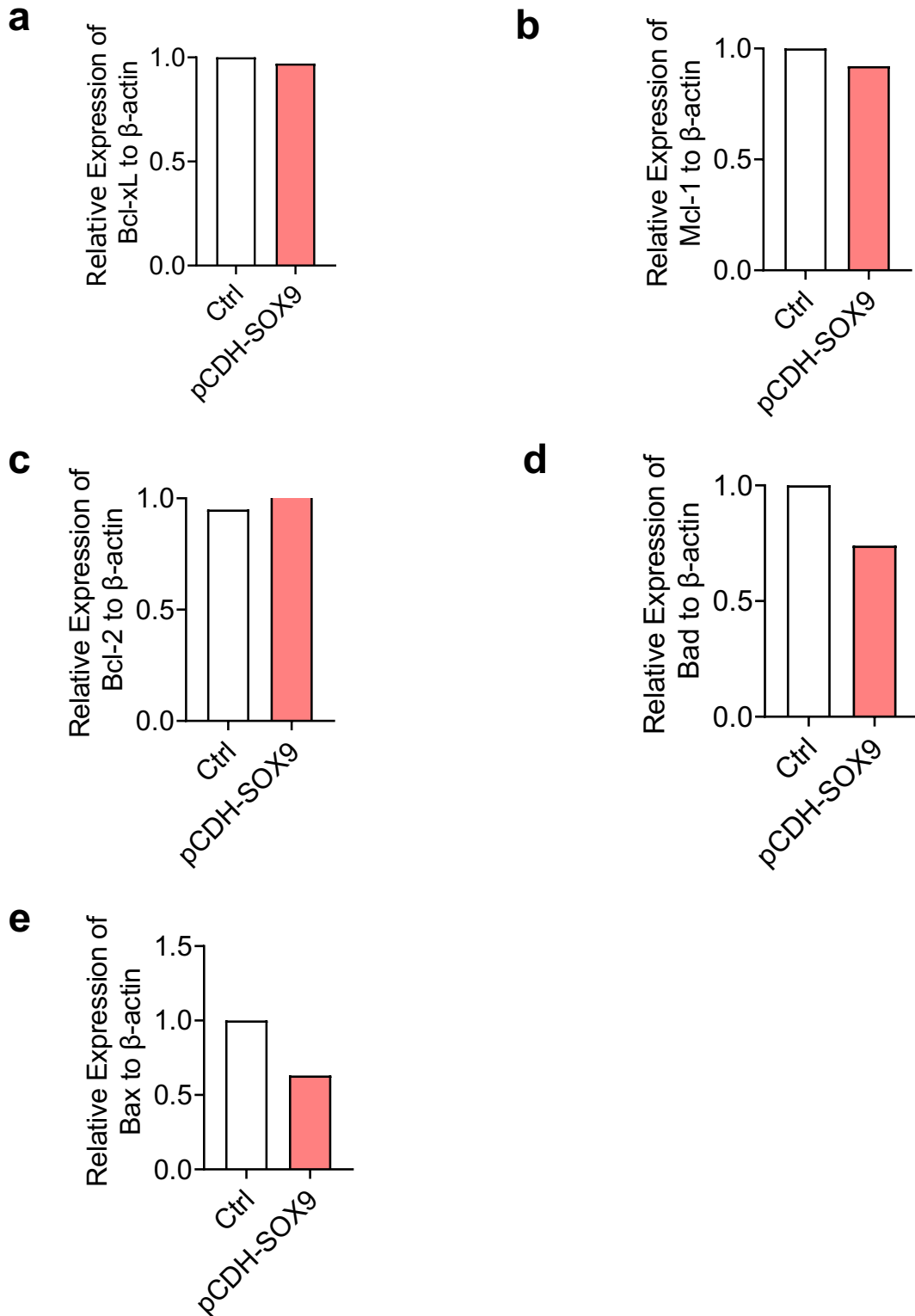
**Supplemental Figure 7. Densitometry quantitation of Figure 2e** . Immunoblotting assay of Bcl-xL, Bcl-2, Mcl-1, Bad and Bax protein expressions was performed as described previously. Bands intensities were measure using Image J software and relative expressions of **(a)** Bcl-xL **(b)** Mcl-1 **(c)** Bcl-2 **(d)** Bad and **(e)** Bax were determined in SOX9 shRNAs silenced Karpas-422 cells. Scramble control transduced cells were denoted as 1.

## Supplemental Figure 8



**Supplemental Figure 8. Densitometry quantitation of Figure 6f.** Immunoblotting of Bcl-xL, Mcl-1, Bcl-2, Bad and Bax was performed as described previously. Bands intensities were measured using Image J software and relative expressions of (a) Bcl-xL, (b) Mcl-1 (c) Bcl-2 (d) Bad and (e) Bax proteins were determined in DHCR24 lentiviral transduced SOX9 deficient Karpas-422 cells. Scramble control transduced cells were denoted as 1.

## Supplemental Figure 9



**Supplemental Figure 9. Densitometry quantitation of Supply. Figure 1f.** Immunoblotting assay of Bcl-xL, Bcl-2, Mcl-1, Bad and Bax protein expressions was performed as described previously. Bands intensities were measure using Image J software and relative expressions of (a) Bcl-xL (b) Mcl-1 (c) Bcl-2 (d) Bad and (e) Bax were determined in lentiviral encoding pCDH-SOX9 overexpressing OCI-LY1 cells. Vector control transduced cells were denoted as 1.



# Patients numbers	DX name	Location	Age	Gender	GCB vs non-GCB	Cytogenetics /FISH	SOX9	Prior lymphoma history
1	DLBCL		68	M	GCB	NA	POS (+)	FL , Grade 2 (1997)
2	DLBCL	left axillary LN	38	M	GCB	No CG, but PCR showed IGH-BCL2		FL, grade 1-2 (2001)
3	DLBCL	left lower lobe, lung	60	M	non-GCB	NA		
4	DLBCL	left pterional mass	74	F	non-GCB	NA		
5	DLBCL	right posterior mass	86	F	non-GCB	FISH NEG		
6	DLBCL	left neck mass	59	F	GCB	FISH NEG		
7	DLBCL	right posterior LN	45	F	GCB	FISH NEG		
8	DLBCL	right neck mass	65	F	GCB	FISH NEG		
9	DLBCL	small bowel	50	M	non-GCB	FISH NEG		
10	DLBCL	right parapharyngeal mass	77	M	non-GCB	FISH NEG		
11	DLBCL	mesenteric LN	57	M	GCB	FISH NEG		
12	DLBCL	spleen	70	F	non-GCB	NA		
13	DLBCL + FL (<5%)	spleen	60	F	GCB	No CG, but PCR showed IGH-BCL2		FL, grade 2 with focal grade 3a (2008) -a couple of months
14	DLBCL	right upper cervical LN	68	F	GCB	FISH NEG		
15 (=16)	DLBCL					NA		
16	DLBCL	right testis and cord	90	M	GCB	NA		
17	DLBCL	left inguinal LN	71	M	non-GCB	NA		
18	DLBCL + FL grade 3B	left axillary LN	46	F	GCB	NA		
19	DLBCL	right breast mass	66	F	non-GCB	FISH negative		
20	DLBCL	left axillary LN	45	M	non-GCB	complex;FISH negative		
21	DLBCL, CD5+	left cervical LN	62	M		NA		
22	DLBCL	abdomen LN	61	F	non-GCB	NA		
23	DLBCL	spleen	69	M	GCB	complex; FISH IGH-BCL6		
24	primary DLBCL of the CNS	left frontal tumor	64	F	non-GCB	NA		
25	DLBCL	terminal ileum	49	F	GCB	Complex; FISH negative		
26	DLBCL	right testis and cord	65	M	non-GCB	FISH NEG		
27	DLBCL (80%) + FL 3B (20%)	left groin LN	73	M	GCB	NA		
28	DLBCL	left flank mss	68	M	GCB	NA		FL, grade 1-2 (2002)
29	DLBCL	right tonsil	23	M	non-GCB	FISH NEG		
30	DLBCL	spleen	71	M	non-GCB	FISH NEG		
31	DLBCL	right facial LN	56	M	non-GCB	complex		
32	DLBCL	right deep jugular LN	76	F	non-GCB	complex; IGL-BCL6; five copies of BCL2		
33	DLBCL	left axillary mass	69	M	non-GCB	complex; IGH-BCL6		
34	DLBCL	right upper lobe, lung	67	F	GCB	complex; IGH-BCL6+; 4X MYC		
35	DLBCL	thyroid isthmus mass	70	F	non-GCB	normal karyotype; NEG BCL2 and MYC		
36 (=53)	DLBCL	abdominal wall mass	64	M		FISH NEG		FL starting 1995
37	EBV+ DLBCL, age-related		80	M	non-GCB	FISH NEG	POS (++)	
38	DLBCL	right adrenal mass	88	M	GCB	FISH NEG		
39	DLBCL (anaplastic morphology)	right thigh mass	70	F	non-GCB	FISH NEG		
40	DLBCL	left thyroid	72	F	non-GCB	FISH NEG		DLBCL (2009)
41	DLBCL, EBV+, age/induran-related	left adrenal gland	82	M	non-GCB	NA		
42	DLBCL and FL grade 3B (<%)	right groin LN	71	F	GCB	FISH NEG		
43	DLBCL (Richter's)	Left upper cervical LN	88	M		complex		CLL/SLL
44	DLBCL	Left inguinal LN	39	F	GCB	complex with t (14;18)		FL (2010)
45	DLBCL	right inguinal mass	45	F	GCB	FISH: IGH-BCL2	POS (+)	FL, Gr 2 (1998)
46	DLBCL	Left inguinal LN	66	F	GCB	complex; FISH BCL6 (62.5%); IGH-BCL2 (68%)		
47	DLBCL	right inguinal LN	50	M	GCB	complex: IGH-BCL2 (37%); 3-4 copies BCL6	POS (++)	
48	DLBCL	Abdominal LN	74	F	non-GCB	FISH: BCL6 rearranged		
49	DLBCL	Right submandibular mass	76	M	non-GCB	FISH: BCL6 rearranged		
50	DLBCL	Left Cervical LN	50	F	GCB	NA	POS (+)	DLBCL (2004), FL grade 2 (relapse post transplant, 2006)
51	DLBCL	Left inguinal LN	47	M	GCB	loss of Y, del(1)(p34), tetraploidy		
52	DLBCL	AP window LN	69	F	GCB	complex: FISH IGH-BCL6		
53	DLBCL	Abdominal mass	64	M	GCB	complex: FISH MYC rearranged		FL starting 1995; DLBCL (#36)
54	DLBCL (Richter's)	Lower back mass	65	M	non-GCB	FISH: trisomy 12, IGH-BCL6		CLL (10 years ago), DLBCL in 2009
55	primary DLBCL of the CNS	Brain tumor	84	F	non-GCB	FISH NEG		
56	DLBCL (Richter's)	left axillary LN	75	F		complex (suboptimal)		
57	DLBCL (PTLD, monomorphic)	small intestine	52	M	GCB	MLL amp	POS (++)	
58	DLBCL	right laryngeal mass	80	F	non-GCB	complex		
59	DLBCL	right neck mass	73	F	non-GCB	suboptimal FISH		
60	DLBCL (Richter's)	Left axillary LN	75	M		del(10)(q22q26) del(13)(q12q14)		CLL/SLL (2005)
61	DLBCL	right breast	81	F	non-GCB	FISH NEG		DLBCL, in breast (2000)
62	DLBCL	left deep jugular LN	55	M	non-GCB	complex; IGH-BCL6		
63	DLBCL	spleen	78	M	non-GCB	complex		history of grade 3a FL
64	DLBCL	right parotid mass	48	M	GCB	FISH NEG		
65	DLBCL	right upper abdomen mass	63	F	non-GCB	complex		EBV+ DLBCL with BM involvement (2010)
66	DLBCL	spleen	71	M	non-GCB	complex:FISH 3 copies BCL6		

67	DLBCL	right facial cutaneous mass	66	M	GCB	complex:FISH IGH-BCL2		FL, grade 2/3 (2011)
68	DLBCL	lateral pelvic mass	46	F	non-GCB	complex: FISH 3-5 copies MYC		
69	DLBCL	Left axillary LN	72	F	GCB	complex: FISH IGH-BCL2 (22%); BCL6 (19%)		FL, grade 2 (2006)
70	primary DLBCL of the CNS	right frontal brain tumor	46	M	GCB	FISH IGH-BCL6		
71	PMLBCL	Mediastinal mass	45	F	non-GCB	NA		
72	DLBCL (anaplastic morphology)	Left neck LN	70	M	non-GCB	Complex; FISH 3 copies BCL6, MYC and BCL2		
73	DLBCL	Left anterior neck mass	85	F	GCB	NA		
74	DLBCL	Right neck level II LN	29	M	non-GCB	FISH NEG		
75	DLBCL	Tonsil	69	M	GCB	complex; FISH MYC rearranged (8%), 6 copies of BCL2		
76	DLBCL	Right Deep Cervical LN	89	M	GCB	complex with t(14;18); FISH IGH rearranged (22%)		
77	DLBCL	left deep cervical lymphoma	64	M	GCB	complex with 3-way IGH-BCL2, BCL6-IGH translocation		FL (2001)
78	DLBCL	Left inguinal LN	45	M	GCB	complex: FISH IGH-BCL2 (31%)	POS (++)	FL, Gr I (2006)
79	DLBCL	right neck level 2 LN	55	M	GCB	complex with t(14;18)		B-NHL (DLBCL?) (2011)
80	DLBCL	right chest wall mass	64	F	GCB	FISH NEG		diffuse follicular lymphoma, grade 1-2 (2011)
81	DLBCL (80%) + FL 3B (20%)	submental LN	43	M	non-GCB	FISH 3 copies of BCL6 and BCL2		
82	DLBCL and FL grade 3B	Left Cervical LN	74	M	GCB	t(14;18) [8/15]	POS (++)	
83	DLBCL (anaplastic morphology)	left Level 4 cervical LN	74	M	non-GCB	FISH MYC rearranged, extra copies of BCL6 and BCL2		
84	DLBCL	Left inguinal LN	21	M	GCB	FISH NEG		
85	DLBCL	Right cervical LN	75	F	GCB	NA		
86	DLBCL	Right level 4 Cervical LN	45	F	GCB	Complex: FISH extra copies of BCL6 and BCL2		
87	DLBCL, EBV+, age-related	Right Deep Cervical LN	69	F	non-GCB	trisomy 15		
88	DLBCL	Right Deep Cervical LN	66	F	GCB	complex: FISH IGH-BCL2 (98%)	POS (+)	DLBCL (2012)
89	DLBCL	Left neck mass	42	M	non-GCB	FISH IGH-BCL6,		
90	DLBCL	right cervical LN	46	M	GCB	complex: FISH IGH-BCL2 (40%)	POS (++)	
91	primary DLBCL of the CNS	Right Parietal Brain tumor	69	F	non-GCB	NA		
92	DLBCL	Right groin LN	44	M	GCB	Complex; IGH-BCL6; 3 copies of MYC in small subset		
93	DLBCL	Occipital Scalp Mass	82	F	GCB	Complex; FISH 3 copies BCL6		
94	primary DLBCL of the CNS	Right frontal tumor	90	M	non-GCB	FISH NEG		
95	DLBCL	Left inguinal LN	85	F	non-GCB	NA		
96	DLBCL	L5 epidura	65	M	GCB	NA		
97	DLBCL	Mediastinal LN	71	M	GCB	Extra copies of BCL6 and MYC (near tetraploidy)		
98	DLBCL	Left Cervical LN	53	M	non-GCB	Complex		
99	DLBCL	Right neck LN	52	M	non-GCB	FISH IGH-BCL6, extra copies of BCL2		
100	DLBCL	Pre-Tracheal LN	73	F	non-GCB	IGH-BCL2 (65%), BCL6 (22.5%)		FL, grade 1 (2003)
101	DLBCL (anaplastic morphology)	Left inguinal LN	67	M	non-GCB	IGH-BCL2 (12%), BCL6 (2.5%), MYC (2%)		
102	DLBCL	Parotid mass	60	F	GCB	IGH-BCL6 (90%); IGH-BCL2 (90%)		History of FL (by EPIC)
103	DLBCL	Left neck LN	91	M	non-GCB	FISH IGH-BCL6, extra copies of BCL2		
104	DLBCL	right groin mass	50	M	non-GCB	complex		
105	DLBCL	left supraclavicular LN	71	F	non-GCB	normal karyotype; trisomy 15 (FISH)		EBV+ PTLD, polymorphic (2013)
106	DLBCL	right groin LN	64	F	GCB	complex; IGH-BCL2 (variant)		
107	DLBCL	Left axillary LN	55	F	non-GCB	complex		
108	DLBCL	splenic hilar LN	67	F	GCB	complex; IGH-BCL6; deletion of MYC and TP53; BCL2 amplification		
109	DLBCL	right arm mass	55	M	GCB	complex: FISH IGH-BCL2 (98%)	POS (+++)	DLBCL (60%), FL 3B (40%) (2013); EPIC history
110	DLBCL	right neck node	68	M	GCB	complex		
111	DLBCL	right neck mass	72	F	non-GCB	complex; 4X BCL6, 5X BCL2		
112	High grade B-cell lymphoma	right nasal mass	83	F		extra copy of BCL2		
113	primary DLBCL of the CNS	Right cerebellar tumor	33	M	GCB	FISH NEG		
114	DLBCL	suboccipital subcutaneous mass	62	M	GCB	FISH NEG		

**Supplemental Table 1: Clinical information of 114 DLBCL primary cases.** M: Male; F: Female; GCB: Germinal Center B cells; FISH: Fluorescence In Situ Hybridization; FL: Follicular Lymphoma; POS: positivity of SOX9 staining

## Supplemental Table 2: Primer sequences

<b>shRNA targeting sequences</b>		
Targeted Gene	Oligo #	Targeting Sequence (5'->3')
SOX9	shSOX9#1	tgaagatgaccgacgagcaggagaa
SOX9	shSOX9#2	gagaccttcgatgtcaacgagtttg

<b>Primers used for ChIP to amplify the DHCR24 promoter</b>		
Name	Sense sequence (5'->3')	Antiense sequence (5'->3')
SOX9(-599/-348)	ctgggctgctccaagtga	ttaagcggtttgcagtgcc
SOX9(-636/-452)	aatggcctctggagttcacg	aaacctcgcgattggctcggg
SOX9(-251/-78)	attcgagcggaccccaccggca	cgctcgcgattggctcggg

<b>Primers of DHCR24 for promoter luciferase</b>		
Name	Sense sequence (5'->3')	Antiense sequence (5'->3')
DHCR24	cccgtaccctggtatgcatgttagcttcta	tttctcgggggtcggcgccgcgcggttaa
Full length	aact	
DHCR24 mutant	tttctgggctgctccaagtgtactgttaggag	gcagtggggagtggtgagctcctaacag
	ctcaccactcccact	tacacttgaagcagcccagaaa

<b>Primer sequences used for real-time PCR</b>		
Name	Sense sequence (5'->3')	Antiense sequence (5'->3')
SOX9	ttgagcctaaaacggtgct	ctggtgttctgagaggcaca
GAPDH	gagtcaacggatttggtcgt	ttgattttggagggatctcg
DHCR24	tgtgcctgagcttgatgac	gaccagggtacggcatagaa
CYP51A1	gctcagttgtccctgcttc	aaaattagccaggcatggtg
FDFT1	ataaccaatgcactgcacca	cctttccgaatcttactgc
NSDHL	ctcagccagtcactccttc	ctgcctgcttcaagaaatcc
MSMO1	actctgtctcctggctgga	catcgtgaaaccccatctct

**Significant association**

Variable		Total	SOX9		P value (Neg vs Pos)
			Neg	Pos	
IGH_BCL2 - no. (%)	Neg	73 (78.5)	71 (84.5)	2 (22.2)	<.001
	Pos	20 (21.5)	13 (15.5)	7 (77.8)	
Stage- no. (%)	1	23 (23.0)	23 (25.0)	0 (0.0)	0.011
	2	27 (27.0)	27 (29.3)	0 (0.0)	
	3+4	50 (50.0)	42 (45.7)	8 (100)	
GCB_vs_non_GCB - no. (%)	GCB	54 (50.5)	44 (45.8)	10 (90.9)	0.008
	non-GCB	53 (49.5)	52 (54.2)	1 (9.1)	

**No significant association**

Parameter	P value (SOX9 <sup>+</sup> vs SOX9 <sup>-</sup> )
Sex	0.34
AGE_at_dx	0.447
ECOG_performance	0.632
IPI	0.873
LDH2	0.343
EOT_response	0.448
Relapse	1
FL_History	0.112
Overall survival	0.66
Relapsed free survival	0.98

**Supplemental Table 3:** Statistical analysis of the association of various clinic-pathologic parameters with SOX9 expression.

## Supplemental Table 4: peaking calling file

# This file is generated by MACS version 1.4.2 20120305  
# ARGUMENTS LIST:  
# name = Ka-IP\_vs\_Ka-Input\_1e-3\_10\_30  
# format = BAM  
# ChIP-seq file = Ka-IP\_sequence\_bowtie2\_hg19\_alignment.bam  
# control file = Ka-Input\_sequence\_bowtie2\_hg19\_alignment.bam  
# effective genome size = 2.70e+09  
# band width = 300  
# model fold = 10,30  
# pvalue cutoff = 1.00e-03  
# Large dataset will be scaled towards smaller dataset.  
# Range for calculating regional lambda is: 1000 bps and 10000 bps

# tag size is determined as 149 bps  
# total tags in treatment: 25801980  
# tags after filtering in treatment: 24823035  
# maximum duplicate tags at the same position in treatment = 3  
# Redundant rate in treatment: 0.04  
# total tags in control: 23223297  
# tags after filtering in control: 22511333  
# maximum duplicate tags at the same position in control = 3  
# Redundant rate in control: 0.03  
# d = 292

chr	start	end	length	summit	tags	#NAME?	fold_enrich	FDR(%)
chr1	9845	10549	705	333	229	373.29	6.95	25
chr1	672470	674920	2451	1962	57	73.9	6.85	58.54
chr1	751772	752600	829	563	19	35.05	6.57	47.49
chr1	1333405	1335116	1712	1049	42	37.34	3.71	46.83
chr1	4066505	4068176	1672	1088	44	35.48	5.27	47.44
chr1	4964254	4965344	1091	518	24	36.94	4.93	46.9
chr1	5664718	5665783	1066	550	21	30.4	4.93	51.46
chr1	6051028	6051935	908	631	23	39.03	4.95	46.23
chr1	6504552	6505444	893	653	19	31.38	5.34	50.16
chr1	7827803	7828677	875	251	25	49.44	4.87	51.79
chr1	8445652	8447039	1388	647	29	31.88	5.35	49.82
chr1	8475437	8476545	1109	530	24	33.55	6.3	48.54
chr1	9196992	9197836	845	430	19	34.09	4.93	48.17
chr1	9553453	9554349	897	263	20	34.33	4.83	47.81
chr1	9623284	9624551	1268	687	32	37.64	4.89	45.88
chr1	10545938	10546843	906	623	21	34.93	4.19	47.64
chr1	10618929	10619825	897	634	20	35.33	4.93	47.42
chr1	10635797	10636704	908	636	20	31.36	4.62	50.21
chr1	10753585	10754339	755	467	22	45.28	5.71	49.28
chr1	11193910	11194749	840	557	20	31.87	5.39	49.75
chr1	11230471	11231343	873	284	20	36.77	4.52	46.92
chr1	11315837	11316779	943	366	27	48.03	5.53	49.09
chr1	11967490	11969038	1549	739	42	32.9	3.91	49.34
chr1	12166650	12167999	1350	716	26	31.98	4.52	49.83
chr1	12925018	12925994	977	595	20	30.96	5.34	50.47
chr1	14573824	14574640	817	548	18	31.45	5.34	50
chr1	14672699	14673921	1223	704	28	40.82	7.23	46.35

chr1	15952640	15954253	1614	367	32	38.45	4.33	46.37
chr1	17028153	17031828	3676	534	83	39.93	3.69	46.72
chr1	17353993	17354506	514	257	16	34.23	4.98	47.91
chr1	17600541	17601426	886	521	19	31.76	4.11	49.79
chr1	19115873	19117150	1278	658	26	35.25	5.75	47.32
chr1	19483862	19484611	750	264	17	31.07	4.52	50.77
chr1	21158591	21160856	2266	1169	45	46.45	3.08	48.38
chr1	21303958	21305332	1375	909	31	40.14	3.97	46.73
chr1	21612965	21614428	1464	893	34	32.02	4.67	49.78
chr1	23044051	23044825	775	443	19	38.51	6.16	46.29
chr1	23075349	23076314	966	528	21	35.6	4.93	47.23
chr1	24496698	24497666	969	264	24	44.14	4.93	48.04
chr1	25072480	25073729	1250	541	34	30.37	4.93	51.61
chr1	25084625	25085937	1313	598	32	35.79	5.24	47.11
chr1	26080631	26081412	782	527	18	33.52	4.93	48.58
chr1	26161464	26162160	697	345	19	44.19	6.16	48.06
chr1	27055592	27056619	1028	750	28	36.65	5.11	46.96
chr1	27086822	27088730	1909	1330	41	32.72	3.74	49.37
chr1	27089134	27090370	1237	550	26	37.26	6.57	46.54
chr1	27092280	27093218	939	425	21	33.02	5.33	49.13
chr1	27107281	27108189	909	259	21	35.36	5.39	47.49
chr1	27720473	27721907	1435	753	34	32.77	4.63	49.43
chr1	28487566	28488798	1233	752	27	37.17	4.62	46.91
chr1	28765405	28766269	865	266	20	33.25	4.19	48.93
chr1	29411164	29412244	1081	591	24	37.49	6.98	46.03
chr1	30187444	30188174	731	439	17	32.22	5.34	49.98
chr1	30265545	30266826	1282	638	26	35.06	4.52	47.42
chr1	30814646	30815589	944	257	21	36.86	5.34	46.73
chr1	31029565	31030687	1123	537	23	31.43	6.16	50.07
chr1	34094659	34095331	673	438	16	31.05	4.48	50.58
chr1	34562533	34563828	1296	640	30	50.37	6.98	51.92
chr1	35497769	35499253	1485	776	40	51.09	4.67	51.85
chr1	35638112	35639714	1603	727	44	39.08	3.42	46.32
chr1	35970949	35973764	2816	1315	60	31.16	4.82	50.55
chr1	36246961	36247828	868	274	20	37.07	4.93	46.91
chr1	36806871	36807749	879	652	19	32.14	4.93	49.88
chr1	36875118	36875781	664	250	16	31.12	4.83	50.71
chr1	36997909	36998943	1035	686	21	31.93	4.93	49.77
chr1	37116174	37116884	711	223	17	30.04	6.09	51.46
chr1	38204651	38205500	850	462	20	38.2	4.93	46.37
chr1	38405327	38406155	829	272	20	30.09	5.82	51.54
chr1	38503473	38504400	928	346	20	33.57	4.52	48.57
chr1	38988426	38989665	1240	602	25	33.34	5.75	48.7
chr1	39293256	39293868	613	273	15	30.66	5.75	51.05
chr1	39338960	39340238	1279	271	40	42.85	4.16	47.31
chr1	39609840	39610494	655	387	16	32.54	5.75	49.34
chr1	39764868	39765888	1021	568	23	32.44	4.57	49.55
chr1	40637022	40638923	1902	556	42	31.76	4.15	49.86
chr1	40656728	40658261	1534	342	34	30.09	3.49	51.54
chr1	40960983	40961975	993	599	25	47.15	6.16	47.45
chr1	42336215	42337324	1110	442	26	32.8	5.14	49.44
chr1	42527174	42528442	1269	723	25	32.01	6.57	49.77

chr1	42927344	42928354	1011	612	24	36.93	4.95	46.87
chr1	43086932	43088760	1829	778	44	70.06	5.75	53.39
chr1	43238545	43239557	1013	313	21	30.25	5.45	51.69
chr1	43848207	43849214	1008	365	21	33.32	5.34	48.74
chr1	44146333	44147730	1398	738	28	32.14	4.95	49.82
chr1	44172287	44174463	2177	968	54	53.24	5.6	51.61
chr1	44225873	44226777	905	422	21	32.68	5.46	49.36
chr1	44538819	44540759	1941	707	39	48.29	6.16	49.5
chr1	44723706	44724560	855	583	19	33.51	4.93	48.65
chr1	45159690	45160578	889	534	20	31.31	5.27	50.33
chr1	45451672	45453078	1407	820	32	31.66	4.67	49.87
chr1	45546899	45547967	1069	412	21	30.26	4.93	51.61
chr1	46206234	46207365	1132	577	29	30.68	4.28	50.99
chr1	46531327	46532582	1256	435	31	30.34	4.57	51.6
chr1	46768049	46770856	2808	795	67	43.67	4.4	47.91
chr1	46843313	46844180	868	507	20	37.07	5.34	46.91
chr1	47439411	47440592	1182	702	28	48.58	6.57	49.74
chr1	47963721	47965638	1918	533	37	45.75	6.16	49.96
chr1	48542168	48543036	869	537	19	32.71	4.93	49.41
chr1	49803914	49804854	941	566	20	32.86	5.75	49.3
chr1	50351395	50352464	1070	546	21	30.21	4.93	51.72
chr1	50549766	50550888	1123	590	23	30.41	5.64	51.47
chr1	51272689	51274610	1922	352	49	61.3	4.52	54.72
chr1	51384622	51385943	1322	746	31	35.19	5.17	47.14
chr1	51509195	51510718	1524	1031	36	51.48	5.33	51.71
chr1	51954091	51955325	1235	772	31	37.99	5.97	46.45
chr1	52239033	52240237	1205	913	30	34.37	3.98	47.83
chr1	52262782	52264347	1566	1177	31	37.14	5.51	46.96
chr1	52726680	52728213	1534	205	32	45.47	4.11	49.89
chr1	52873185	52874556	1372	1091	32	31.54	3.94	49.92
chr1	53694376	53695694	1319	767	29	39.49	4.95	46.98
chr1	53917200	53917862	663	276	18	37.85	6.09	46.8
chr1	53939263	53939979	717	464	18	37.76	4.93	46.71
chr1	54327276	54330226	2951	626	74	61.25	4.57	55.08
chr1	55352422	55353509	1088	800	28	33.03	5.41	49.15
chr1	55852890	55853956	1067	358	25	41.26	5.24	46.91
chr1	56568390	56569263	874	408	21	41.2	6.98	46.62
chr1	56763450	56764522	1073	479	21	30.07	4.93	51.46
chr1	56793287	56794281	995	470	21	34.01	5.75	48.54
chr1	57883443	57885315	1873	1278	42	30.1	4.85	51.56
chr1	58949429	58951256	1828	579	37	30.51	4.36	51.29
chr1	58994331	58995806	1476	997	31	31.7	3.77	49.78
chr1	59013746	59014679	934	288	21	31.59	4.42	49.99
chr1	59119748	59121149	1402	783	29	35.39	5.71	47.61
chr1	59212292	59213149	858	622	22	42.26	5.75	47.24
chr1	59394489	59395070	582	291	15	32.66	6.16	49.32
chr1	59750915	59751601	687	417	17	35.07	6.16	47.35
chr1	60548297	60549313	1017	355	21	32.85	5.34	49.36
chr1	61015722	61017559	1838	289	39	43.98	5.18	47.89
chr1	61655732	61656668	937	474	21	37.27	5.34	46.57
chr1	61660084	61661376	1293	551	30	37.27	6.16	46.55
chr1	61767067	61768341	1275	509	28	43.21	5.75	47.6

chr1	61837134	61838701	1568	964	34	47.62	4.52	49.12
chr1	62511814	62512704	891	508	19	31.48	5.34	49.85
chr1	62551989	62552822	834	375	18	30.49	5.75	51.26
chr1	62612292	62613239	948	663	20	32.48	4.93	49.47
chr1	62768441	62769204	764	475	17	30.24	5.34	51.77
chr1	63443585	63444591	1007	732	22	33.37	4.52	48.68
chr1	63649181	63650126	946	255	20	32.59	6.57	49.31
chr1	63984660	63985930	1271	773	30	40.59	4.59	46.73
chr1	64096584	64097330	747	530	17	31.25	4.11	50.49
chr1	65306495	65307727	1233	637	27	40.15	7.25	46.7
chr1	66142187	66144160	1974	478	46	70.01	4.93	52.5
chr1	66509336	66510252	917	657	21	38.48	4.93	46.32
chr1	66659911	66661309	1399	672	28	36.95	6.16	46.95
chr1	66701774	66702669	896	623	22	32.1	4.64	49.74
chr1	67135672	67136651	980	349	21	34.82	5.34	47.49
chr1	67172103	67173271	1169	621	24	32.98	6.16	49.22
chr1	67428291	67429918	1628	1255	34	44.63	4.52	48.94
chr1	67564271	67565422	1152	833	26	31.8	4.19	49.82
chr1	67655655	67656631	977	480	21	34.99	6.16	47.61
chr1	67762413	67763080	668	393	20	51.95	6.57	51.11
chr1	67777675	67779170	1496	319	32	47.44	4.11	48.51
chr1	67854752	67856018	1267	519	29	47.81	5.75	49.34
chr1	68207072	68209091	2020	1334	37	44.78	5.34	48.95
chr1	68214305	68215130	826	469	20	39.75	6.16	46.7
chr1	69383772	69384611	840	580	18	30.16	5.34	51.72
chr1	69491985	69492937	953	663	20	32.21	4.93	49.97
chr1	69587157	69588023	867	409	21	41.66	4.93	47.25
chr1	69798973	69799578	606	282	17	40.15	5.24	46.69
chr1	69816409	69817412	1004	351	26	48.93	5.97	50.32
chr1	69949224	69950361	1138	571	25	37.28	5.64	46.71
chr1	69958295	69959363	1069	592	22	30.26	5.75	51.61
chr1	70055452	70057053	1602	1166	31	38.54	5.34	46.26
chr1	70577414	70579483	2070	612	41	49.6	6.98	51.17
chr1	70598977	70600529	1553	241	32	31.43	3.08	50.08
chr1	70603214	70604180	967	263	27	58.72	6.16	52.69
chr1	70653210	70654032	823	314	20	36.43	4.62	47.18
chr1	71018958	71019885	928	345	24	46.88	6.98	47.48
chr1	71484278	71485066	789	516	19	37.58	5.34	45.92
chr1	72028286	72029014	729	452	17	32.34	5.75	49.9
chr1	72159874	72160637	764	473	17	30.24	4.93	51.77
chr1	72531604	72532280	677	389	16	31.11	5.34	50.68
chr1	72676773	72677972	1200	801	24	31.52	4.93	49.89
chr1	73045541	73046361	821	532	20	40.09	6.57	46.58
chr1	73387706	73388381	676	290	17	35.83	5.34	47.03
chr1	73515637	73516449	813	442	18	31.68	4.93	49.84
chr1	73724476	73725162	687	425	16	30.49	4.93	51.31
chr1	73908890	73909726	837	460	18	30.33	5.34	51.59
chr1	74214498	74215626	1129	719	23	31.15	4.93	50.63
chr1	74303597	74304425	829	406	18	30.77	4.52	50.95
chr1	74347883	74348698	816	547	18	31.51	5.34	49.84
chr1	74383614	74384413	800	488	21	46.38	6.16	48.4
chr1	74535912	74536619	708	437	18	33.05	5.89	49.15



chr1	74803091	74804838	1748	504	38	31.08	4.05	50.74
chr1	75354335	75355846	1512	1178	39	69.3	5.58	55.2
chr1	75488373	75489340	968	677	20	31.43	5.34	50.12
chr1	75611313	75611904	592	238	16	37.04	5.75	47.01
chr1	75775018	75775814	797	512	18	32.61	4.52	49.4
chr1	75913281	75914358	1078	419	24	37.65	5.34	45.98
chr1	76109440	76110468	1029	492	24	40.44	4.52	46.93
chr1	76313219	76314268	1050	451	23	35.1	4.52	47.39
chr1	76451291	76452115	825	452	19	35.3	5.75	47.33
chr1	76929663	76931632	1970	599	43	36.77	4.89	46.97
chr1	76977772	76978801	1030	768	22	31.79	4.89	49.79
chr1	77092715	77093818	1104	434	24	36.25	6.16	46.93
chr1	77355443	77357022	1580	519	32	30.29	3.77	51.67
chr1	77444296	77445628	1333	431	28	40.16	4.93	46.7
chr1	77545234	77546422	1189	548	25	35.81	7.39	47.14
chr1	77941472	77942209	738	282	18	33.7	5.06	48.61
chr1	77979589	77980491	903	239	21	39.34	4.93	46.61
chr1	78367821	78368773	953	347	20	32.21	4.93	49.97
chr1	78399027	78400007	981	607	21	34.77	4.52	47.62
chr1	78641220	78642282	1063	601	22	30.55	4.52	51.18
chr1	78801677	78802713	1037	656	21	31.83	5.34	49.81
chr1	79457747	79459120	1374	639	32	54.32	7.39	54.65
chr1	79537180	79538446	1267	713	29	47.81	5.75	49.34
chr1	79552458	79553242	785	300	19	37.84	5.34	46.76
chr1	79566317	79567339	1023	733	26	49.78	6.98	52.16
chr1	79589003	79589746	744	273	18	32.25	5.33	50.01
chr1	79724189	79726170	1982	1298	40	43.18	4.95	47.47
chr1	79756255	79756897	643	282	17	38.21	6.57	46.35
chr1	80299824	80300934	1111	646	26	39.21	8.37	46.34
chr1	80470298	80470974	677	282	16	31.11	6.16	50.68
chr1	80578088	80579014	927	336	22	37.87	4.52	46.67
chr1	81084840	81085724	885	425	20	36.04	5.34	46.89
chr1	81167830	81168914	1085	281	27	50.26	6.16	51.64
chr1	81216387	81217013	627	283	18	44.25	6.93	48.38
chr1	81425299	81426210	912	646	21	38.78	4.93	46.06
chr1	81492042	81493006	965	286	20	31.58	4.93	50
chr1	81505064	81506049	986	534	22	30.48	4.95	51.28
chr1	81756228	81757278	1051	375	23	35.05	5.34	47.54
chr1	81864674	81865477	804	220	19	36.61	4.52	46.97
chr1	82126666	82127747	1082	462	23	33.44	4.93	48.62
chr1	82647415	82648380	966	525	21	35.6	5.34	47.23
chr1	82999621	83000373	753	514	17	30.89	5.75	50.71
chr1	83121652	83122444	793	355	18	32.85	5.34	49.28
chr1	83139901	83140756	856	583	20	37.82	5.34	46.66
chr1	83319161	83319997	837	247	19	34.57	5.34	47.74
chr1	83394737	83395717	981	731	21	34.77	4.93	47.62
chr1	83547571	83548953	1383	553	30	45.45	4.11	49.71
chr1	83746636	83747535	900	598	21	39.53	4.52	46.86
chr1	84055571	84057039	1469	1257	34	38.59	4.11	46.13
chr1	84259042	84260213	1172	573	28	49.2	6.57	50.89
chr1	84370489	84371772	1284	736	26	34.97	5.75	47.59
chr1	84526036	84526959	924	282	23	42.51	4.93	47.28

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chr1	84643686	84644955	1270	649	28	36.84	5.96	46.87
chr1	84654138	84655078	941	672	23	31.16	4.11	50.57
chr1	84687711	84689122	1412	639	31	42.15	8.37	47.02
chr1	84707660	84710129	2470	592	56	79.18	6.16	60.34
chr1	85039759	85041720	1962	1467	46	32.61	4.2	49.39
chr1	85073957	85075145	1189	251	28	48.15	4.52	49.46
chr1	85203673	85204650	978	496	21	34.93	4.93	47.58
chr1	85620685	85621519	835	290	18	30.19	6.13	51.69
chr1	86370566	86371531	966	728	24	33.48	4.45	48.67
chr1	86793733	86795701	1969	592	34	30.71	5.75	50.99
chr1	87081328	87083157	1830	595	38	39.66	5.1	46.51
chr1	87435569	87437211	1643	935	39	53.52	4.79	52.01
chr1	87510324	87511598	1275	695	28	31.33	4.79	50.27
chr1	87783407	87784228	822	253	19	35.48	4.93	47.39
chr1	88035499	88036399	901	369	21	39.47	6.57	47
chr1	88191015	88191980	966	279	21	35.6	5.34	47.23
chr1	88625236	88625897	662	389	16	32.08	5.34	49.79
chr1	88655715	88656594	880	621	19	32.09	5.34	49.72
chr1	88744824	88745693	870	267	19	30.58	4.33	51.22
chr1	88940564	88941474	911	243	20	34.53	4.52	47.68
chr1	89002642	89003625	984	505	23	32.08	5.83	49.71
chr1	89416393	89417941	1549	971	34	36.93	4.94	46.86
chr1	89482333	89484028	1696	1156	34	40.89	5.3	46.38
chr1	89484457	89485306	850	277	20	35.93	5.9	47.05
chr1	89527895	89529494	1600	1193	34	46	5.75	49.61
chr1	90140275	90141311	1037	676	25	33.16	6.51	49.13
chr1	90150770	90151544	775	530	19	38.51	4.52	46.29
chr1	90171148	90171993	846	606	19	34.03	4.52	48.53
chr1	90370633	90372315	1683	1020	39	30.23	4.28	51.74
chr1	90412477	90413343	867	424	24	41.65	5.3	47.14
chr1	90443860	90445033	1174	711	25	36.57	7.8	46.87
chr1	90465987	90467130	1144	631	29	44.97	6.78	48.85
chr1	90496984	90499282	2299	1605	49	64.57	7.8	54.5
chr1	91770893	91771848	956	670	21	36.17	4.93	46.95
chr1	91852454	91853255	802	487	247	54.6	4.08	54
chr1	91989345	91990354	1010	272	24	32.12	4.19	49.74
chr1	92235411	92236358	948	688	21	36.63	4.11	46.89
chr1	92319674	92320453	780	379	18	33.64	5.75	48.75
chr1	92574938	92575678	741	472	17	31.61	4.52	49.92
chr1	92578716	92579491	776	285	18	33.89	5.34	48.57
chr1	92603157	92604292	1136	761	24	34.6	6.57	47.74
chr1	92664578	92665268	691	407	16	30.24	5.34	51.75
chr1	92829258	92829877	620	291	17	33.78	5.77	48.68
chr1	93038360	93040305	1946	621	44	55.46	5.33	53.43
chr1	93099304	93100318	1015	729	23	34.62	6.69	47.81
chr1	93365335	93366319	985	456	21	30.53	5.33	51.27
chr1	93587102	93588020	919	405	20	30.21	4.57	51.75
chr1	93790216	93791062	847	405	19	33.98	4.52	48.64
chr1	93810227	93812245	2019	559	39	41.59	5.33	47.25
chr1	94080177	94080937	761	492	18	34.83	6.16	47.51
chr1	94184687	94185555	869	247	20	37.01	4.52	46.95

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chr1	94768519	94769333	815	264	19	35.92	5.75	47.05
chr1	94872060	94872989	930	587	21	37.69	5.75	46.43
chr1	94885700	94887048	1349	553	30	30.62	5.82	51.18
chr1	95574425	95575701	1277	615	30	51.51	5.75	51.79
chr1	95724818	95725801	984	601	22	34.6	4.52	47.68
chr1	96222623	96223963	1341	719	27	35.99	5.75	47.07
chr1	96238255	96239573	1319	728	30	49.02	5.75	50.55
chr1	96427964	96428726	763	272	17	30.3	4.52	51.54
chr1	96749391	96749991	601	233	15	31.47	5.75	49.96
chr1	97552308	97553511	1204	514	24	31.34	5.34	50.18
chr1	97565690	97567101	1412	463	35	60.77	6.57	55.22
chr1	97913854	97914716	863	283	19	33.05	4.11	49.1
chr1	98146661	98147812	1152	694	25	37.71	5.34	46.54
chr1	98276471	98278553	2083	1793	53	58.3	4.67	54.18
chr1	98307425	98309373	1949	619	44	36.64	4.05	47.02
chr1	98547362	98549022	1661	401	35	46.79	5.75	47.25
chr1	98549473	98550332	860	266	19	33.22	4.93	49.11
chr1	98662000	98662847	848	590	19	33.92	4.52	48.7
chr1	98779364	98780148	785	514	19	33.95	6.47	48.67
chr1	100066593	100068236	1644	1145	34	35.67	4.42	47.21
chr1	100384985	100386937	1953	1462	40	47.91	4.95	49.14
chr1	100387645	100388395	751	198	20	42.03	4.67	47.04
chr1	100731637	100733247	1611	1080	38	30.69	4	51.03
chr1	100873712	100874486	775	500	20	36.16	4.69	46.97
chr1	100928777	100930218	1442	705	33	33.8	4.94	48.82
chr1	101013239	101014491	1253	783	26	32.52	5	49.4
chr1	101060911	101062025	1115	546	23	31.81	6.16	49.81
chr1	101225763	101226596	834	434	18	30.19	5.3	51.69
chr1	101389859	101390831	973	220	26	34.98	4.36	47.56
chr1	101455380	101456299	920	684	20	33.63	4.48	48.77
chr1	101581927	101583358	1432	647	32	30.49	4.36	51.29
chr1	101615206	101616905	1700	1246	40	57.31	4.95	53.89
chr1	102028895	102030134	1240	727	29	41.5	7	47.12
chr1	102155763	102156687	925	519	20	33.74	4.93	48.66
chr1	102208859	102210185	1327	680	29	43.9	5.71	47.73
chr1	103052202	103053295	1094	724	26	33.66	4.11	48.65
chr1	103697694	103698415	722	413	17	32.78	4.11	49.39
chr1	104198367	104199673	1307	615	30	36.53	4.45	46.91
chr1	104218169	104221090	2922	540	62	46.4	5.12	48.47
chr1	104362993	104364507	1515	863	33	46.44	4.93	48.42
chr1	105237717	105238630	914	281	20	34.35	4.52	47.87
chr1	105265717	105266692	976	699	21	35.04	5.75	47.48
chr1	105310365	105311130	766	489	17	30.13	4.52	51.65
chr1	105594664	105595604	941	655	20	32.86	6.98	49.3
chr1	105739879	105740754	876	285	19	32.31	4.52	50.09
chr1	106184367	106185237	871	418	20	32.9	4.57	49.33
chr1	106193012	106193835	824	440	18	31.05	5.34	50.62
chr1	106561040	106561817	778	490	18	33.76	4.11	48.7
chr1	107573976	107575178	1203	570	24	31.39	5.34	50.21
chr1	107745414	107746164	751	280	17	31.01	5.34	50.5
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chr1	108647826	108649226	1401	784	31	35.2	4.45	47.18
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chr1	108742861	108744726	1866	581	39	31.77	5.49	49.86
chr1	109083325	109084176	852	285	21	39.57	5.45	46.67
chr1	109212320	109213205	886	317	19	31.76	4.52	49.79
chr1	109333866	109335405	1540	1271	35	31.51	4.05	49.88
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chr1	110129176	110130085	910	279	19	30.47	4.11	51.26
chr1	110296131	110296846	716	260	17	33.16	5.75	49.13
chr1	110658327	110658827	501	250	15	34.17	5.14	48.01
chr1	111227982	111228888	907	281	20	34.75	6.16	47.62
chr1	111238754	111239642	889	617	23	44.85	7.8	48.87
chr1	111303348	111304151	804	554	22	38.53	5.77	46.23
chr1	111549074	111550274	1201	459	27	31.59	4.79	50.01
chr1	112101931	112102997	1067	809	28	47.53	5.12	48.63
chr1	112182790	112183991	1202	522	27	33.38	4.24	48.7
chr1	112893111	112894412	1302	816	32	58.85	5.75	52.76
chr1	112943254	112945041	1788	543	43	59.09	5.65	53
chr1	112945972	112946916	945	357	21	35.75	4.43	47.05
chr1	113454737	113456243	1507	923	34	38.95	5.3	46.13
chr1	113512999	113514476	1478	639	34	52.48	5.75	50.63
chr1	114115277	114116246	970	707	21	33.1	4.72	49.2
chr1	114204741	114205491	751	279	19	40.17	5.34	46.72
chr1	114236412	114237234	823	233	23	49.64	5.34	51.23
chr1	114262884	114263841	958	526	21	30.83	4.47	50.87
chr1	114323476	114324508	1033	349	25	34.57	4.19	47.72
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chr1	115014040	115015100	1061	394	27	35.03	5.12	47.46
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chr1	115608576	115609478	903	284	19	30.84	6.16	50.85
chr1	115856117	115856943	827	562	24	54.46	5.75	53.92
chr1	116162838	116163784	947	568	21	36.69	5.34	46.9
chr1	116345388	116346353	966	674	22	31.54	6.47	49.96
chr1	116699099	116700139	1041	661	24	32.76	4.37	49.39
chr1	116823227	116824463	1237	508	26	35.35	7.96	47.45
chr1	116855857	116856698	842	275	19	30.53	3.81	51.26
chr1	116945532	116946470	939	653	21	32.44	4.52	49.56
chr1	116948206	116949380	1175	731	31	45.81	5.98	49.81
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chr1	117860291	117861199	909	510	21	36.6	4.72	46.89
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chr1	119300042	119300866	825	606	18	30.99	4.52	50.47
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chr1	120386389	120387124	736	345	17	31.91	5.75	49.82
chr1	120431393	120432305	913	479	19	30.31	6.57	51.54
chr1	120458367	120459303	937	647	24	46.27	5.75	48.65

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chr1	143248157	143249664	1508	897	49	53.82	4.4	52.36
chr1	143354844	143356550	1707	1293	37	41.12	4.33	46.35
chr1	143509510	143511172	1663	490	73	53.81	4.98	52.25
chr1	143516926	143520117	3192	1460	120	30.98	3.46	50.47
chr1	144708125	144708928	804	456	21	46.08	6.57	49.26
chr1	145394137	145395321	1185	416	32	40.01	4.13	46.51
chr1	145397738	145398928	1191	725	29	30.71	4.21	50.99
chr1	145505942	145507890	1949	284	50	39.93	3.75	46.7
chr1	145653190	145654097	908	286	20	31.36	5.77	50.21
chr1	147074802	147076346	1545	584	31	30.71	3.88	51.02
chr1	147082919	147084498	1580	277	32	43.2	6.16	47.54
chr1	147140889	147141728	840	272	20	32.53	4.37	49.39
chr1	147816144	147816990	847	437	20	38.39	5.34	46.28
chr1	147915800	147917929	2130	1578	39	37.12	5.33	46.94
chr1	148186173	148187482	1310	572	30	31.3	4.76	50.33
chr1	148240694	148243819	3126	1388	81	48.12	3.94	49.32
chr1	149268367	149269884	1518	730	35	35.87	5.22	47.01
chr1	149270552	149273367	2816	2013	67	33.62	4.53	48.72
chr1	149293192	149295401	2210	1922	57	39.06	3.07	46.32
chr1	149583820	149585362	1543	953	36	50.41	5.71	51.79
chr1	149690586	149691761	1176	767	40	44.16	5.02	48.12
chr1	149749896	149751035	1140	322	27	30.12	4.44	51.64
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chr1	150321166	150322280	1115	651	23	31.81	4.93	49.81
chr1	150667450	150669699	2250	1692	57	31.5	3.61	49.86
chr1	150914090	150914947	858	325	19	30.16	5.39	51.71
chr1	151880805	151882906	2102	1395	54	39.27	4.74	46.4
chr1	152997976	152999041	1066	545	23	34.26	5.34	47.89
chr1	153452948	153453860	913	675	19	30.31	4.93	51.54
chr1	153474036	153474784	749	484	17	31.13	4.93	50.63
chr1	153710430	153711354	925	291	20	32.15	3.98	49.88
chr1	153822935	153824454	1520	905	37	30.9	3.65	50.65
chr1	154225720	154226676	957	604	20	32	4.52	49.74
chr1	154229310	154230067	758	474	18	35.02	4.11	47.53
chr1	154569720	154570762	1043	764	24	39.17	4.48	46.24
chr1	154570783	154571639	857	576	19	31.31	4.72	50.32
chr1	154580159	154581283	1125	338	34	33.56	3.67	48.59
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chr1	154944426	154945863	1438	875	35	30.24	4.85	51.74
chr1	155056836	155058183	1348	707	42	38.69	5.02	46.22
chr1	155195939	155197362	1424	806	36	32.69	4.49	49.39
chr1	155374665	155375570	906	461	22	36.16	5.45	46.95
chr1	155395213	155396475	1263	558	27	37.83	5.58	46.68
chr1	155843079	155844321	1243	607	25	33.2	5.34	49.09
chr1	156246119	156246911	793	233	19	31.32	4.37	50.33
chr1	156560991	156562338	1348	579	28	35.86	5.45	46.97
chr1	156701784	156703356	1573	1107	33	39.7	4.84	46.59
chr1	157250144	157251977	1834	1281	35	38.97	5.34	46.12

chr1	157424568	157425328	761	447	17	30.42	4.93	51.28
chr1	157438346	157439664	1319	609	28	40.88	6.16	46.34
chr1	158066403	158067229	827	442	22	44.41	6.57	48.52
chr1	158696927	158697884	958	255	20	31.95	4.11	49.8
chr1	158792015	158792888	874	504	19	32.42	4.93	49.55
chr1	159396051	159397777	1727	622	39	59.14	5.34	53.5
chr1	160588556	160589556	1001	485	22	30.86	6.23	50.9
chr1	160590295	160591157	863	600	19	30.42	3.89	51.34
chr1	160633448	160634427	980	421	21	33.79	5.64	48.72
chr1	160693486	160694377	892	368	21	34.01	4.05	48.55
chr1	160816763	160817859	1097	754	23	30.41	5.12	51.4
chr1	161651527	161656377	4851	1366	137	67.39	3.49	55.17
chr1	161996651	161998678	2028	1473	56	33.93	3.88	48.75
chr1	162363213	162365365	2153	1349	62	42.69	4.11	47.45
chr1	162422611	162424489	1879	1170	46	38.72	4.89	46.26
chr1	162461673	162464590	2918	818	67	34.63	4.21	47.78
chr1	162924449	162925885	1437	773	33	50.65	6.57	51.45
chr1	163203065	163204361	1297	520	31	54.68	4.93	54.03
chr1	163384515	163385442	928	447	21	37.81	5.75	46.63
chr1	163508442	163509670	1229	288	28	45.78	4.93	50
chr1	163649423	163650086	664	226	17	36.68	4.93	46.98
chr1	164498805	164499879	1075	558	23	33.8	6.16	48.84
chr1	164553120	164554030	911	384	19	30.42	4.52	51.31
chr1	165171126	165171918	793	563	19	37.32	4.11	46.71
chr1	165417104	165417849	746	271	18	35.8	4.93	47.08
chr1	165882648	165883668	1021	567	22	32.64	6.16	49.3
chr1	165896467	165897409	943	581	21	36.92	4.93	46.83
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chr1	167036362	167037680	1319	655	28	40.88	5.75	46.34
chr1	167468015	167470605	2591	1986	64	42.18	3.92	47.08
chr1	167733357	167734037	681	249	16	30.86	4.52	50.9
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chr1	167925505	167927526	2022	410	52	33.36	3.67	48.67
chr1	168205438	168206972	1535	927	36	43.73	4.54	47.81
chr1	168531265	168532358	1094	763	25	30.12	4.11	51.63
chr1	168562804	168563557	754	286	17	30.83	6.16	50.9
chr1	168863323	168864238	916	358	20	30.92	4.62	50.58
chr1	168958133	168959708	1576	730	34	47.21	4.52	47.82
chr1	169296484	169297321	838	603	18	30.27	4.93	51.68
chr1	169315803	169316516	714	290	17	33.29	6.16	48.83
chr1	169354989	169355982	994	709	20	30.11	4.93	51.59
chr1	169649430	169650285	856	579	21	32.35	4.11	49.9
chr1	169930079	169930918	840	250	19	34.39	4.11	47.73
chr1	170059635	170060539	905	291	19	30.73	4.93	50.98
chr1	170692837	170693905	1069	669	22	30.26	4.52	51.61
chr1	170807771	170808497	727	279	17	32.47	4.93	49.49
chr1	171073095	171074508	1414	1130	30	31.33	4.11	50.25
chr1	171090584	171091529	946	329	20	32.59	4.11	49.31
chr1	171148343	171149192	850	324	20	34.15	6.09	47.99
chr1	171643480	171645006	1527	252	31	42.01	4.11	47.05
chr1	171744046	171745189	1144	410	26	32.82	4.24	49.43
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chr1	172349893	172350810	918	376	20	34.13	6.16	48.07
chr1	172352989	172353818	830	412	18	30.71	5.34	50.99
chr1	172607830	172608672	843	556	19	30.47	3.81	51.22
chr1	172688307	172689559	1253	568	26	36.47	5.34	47.16
chr1	172852734	172853612	879	283	19	31.21	5.24	50.57
chr1	172866562	172867530	969	482	22	33.15	5.9	49.17
chr1	172873048	172874155	1108	619	23	30.5	5.97	51.31
chr1	172910243	172911036	794	289	19	35.67	4.78	47.17
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chr1	173142946	173143939	994	257	23	38.21	4.52	46.34
chr1	173160508	173161771	1264	473	27	34.9	4.57	47.61
chr1	173170182	173171385	1204	570	32	59	6.09	52.48
chr1	173419974	173421421	1448	764	35	51.86	5.33	50.88
chr1	173565804	173566703	900	281	20	31.81	4.62	49.81
chr1	173894546	173895218	673	357	18	40.96	5.75	46.29
chr1	173897850	173898403	554	277	17	44.21	6.45	48.11
chr1	174151374	174152518	1145	554	25	34.84	5.45	47.57
chr1	174194650	174195689	1040	450	22	31.68	4.93	49.85
chr1	174509677	174510483	807	278	18	32.02	4.52	49.75
chr1	174754868	174755917	1050	279	29	62.39	8.22	55.46
chr1	174944812	174945797	986	680	26	48.6	5.84	49.85
chr1	174952920	174954120	1201	649	26	39.12	6.16	46.33
chr1	175101713	175102330	618	335	15	30.33	5.75	51.64
chr1	176096136	176096941	806	536	21	30.53	4.98	51.24
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chr1	176267256	176267850	595	335	15	31.89	4.93	49.84
chr1	176784636	176785351	716	285	17	33.16	5.34	49.13
chr1	176797017	176798267	1251	465	25	32.83	5.75	49.4
chr1	177741092	177742045	954	505	20	32.16	4.52	49.86
chr1	178075983	178076770	788	286	18	33.15	5.75	49.12
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chr1	178773045	178774797	1753	1117	45	51.27	4.12	51.4
chr1	178903257	178903951	695	271	18	39.32	5.75	46.58
chr1	179064547	179065429	883	271	20	36.16	4.93	46.96
chr1	179160372	179161948	1577	538	32	37.68	4.57	46.4
chr1	179466780	179467686	907	619	19	30.63	4.11	51.2
chr1	179483148	179484180	1033	461	22	32.03	4.93	49.77
chr1	179930336	179931445	1110	367	29	38.82	6.02	46.17
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chr1	180375682	180376970	1289	637	29	37.38	6.13	46.57
chr1	180912279	180913044	766	289	17	30.13	4.11	51.65
chr1	182229323	182230210	888	630	19	31.65	6.57	49.86
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chr1	183177893	183178603	711	463	17	33.48	4.11	48.67
chr1	183350298	183351230	933	465	20	33.29	4.93	48.81
chr1	183986779	183987686	908	243	20	34.7	4.52	47.74
chr1	184058463	184059782	1320	479	28	40.82	5.34	46.34
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chr1	185217259	185218145	887	607	19	31.7	4.11	49.74
chr1	185526989	185527936	948	603	22	36.63	4.52	46.89
chr1	185576328	185578202	1875	684	44	34.71	4.1	47.69
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chr1	185970349	185971220	872	289	19	32.54	4.52	49.4
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chr1	186436336	186438411	2076	775	47	39.7	5.6	46.56
chr1	186478853	186479838	986	549	20	30.51	5.75	51.28
chr1	186979391	186980384	994	512	23	38.21	7.39	46.34
chr1	187090145	187092088	1944	1147	48	80.44	5.75	53.85
chr1	187150984	187151795	812	291	19	36.1	4.52	46.97
chr1	187574286	187575045	760	274	18	34.89	3.7	47.66
chr1	187958912	187960461	1550	877	36	56.73	4.93	53.4
chr1	188045932	188046828	897	536	20	35.33	4.93	47.42
chr1	188210709	188211764	1056	739	25	43.15	5.75	47.31
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chr1	193467567	193468981	1415	831	30	43.77	4.93	47.76
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chr1	193994339	193995744	1406	204	30	44.24	5.75	48.29
chr1	194127193	194128069	877	589	21	41	4.93	46.23
chr1	194618724	194619599	876	618	20	36.58	5.34	46.91
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chr1	216891776	216893415	1640	411	37	45.29	4.74	49.35
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chr1	218239000	218239851	852	584	20	38.07	5.34	46.37
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chr1	220010496	220011857	1362	454	34	58.83	4.89	52.44
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chr1	221527941	221528631	691	402	17	34.8	5.34	47.53
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chr1	222755773	222757282	1510	277	32	33.33	3.42	48.7
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chr1	224655200	224656242	1043	756	22	31.53	4.52	49.89
chr1	224703521	224704372	852	351	19	33.68	4.93	48.55
chr1	225444036	225444974	939	353	21	33.02	3.81	49.13
chr1	225494519	225495932	1414	787	28	36.26	6.16	46.9
chr1	225719307	225720438	1132	524	25	38.79	5.75	46.07
chr1	226123642	226124912	1271	636	26	35.59	6.57	47.16
chr1	226164140	226164980	841	351	18	30.11	6.16	51.58
chr1	226548504	226551362	2859	1381	60	66.45	5.27	54.78

chr1	226750096	226751967	1872	1534	37	42.21	4.01	46.97
chr1	227014989	227016548	1560	465	34	41.16	4.52	46.45
chr1	227108360	227109159	800	453	18	32.44	5.75	49.55
chr1	227834278	227835260	983	298	23	36.42	4.72	47.15
chr1	228012958	228014164	1207	770	28	40.86	4.89	46.34
chr1	228410433	228411714	1282	631	25	31.43	5.75	50.09
chr1	228593567	228594749	1183	905	29	52.97	4.93	50.57
chr1	229620528	229621487	960	533	21	30.73	4.47	51.04
chr1	229922196	229923085	890	262	20	35.75	4.52	47.03
chr1	230094318	230095752	1435	1146	30	42.75	4.11	47.6
chr1	230100125	230101163	1039	234	22	31.73	4.52	49.74
chr1	230678135	230678984	850	415	19	33.8	5.34	48.83
chr1	231376758	231378263	1506	1074	36	34.27	4.25	47.91
chr1	231656345	231658011	1667	1394	30	39.2	4.52	46.28
chr1	232199809	232200462	654	329	16	32.6	5.75	49.39
chr1	233529935	233530922	988	496	20	30.41	4.11	51.4
chr1	233756556	233757366	811	553	21	45.57	7.39	50.04
chr1	234556903	234557811	909	541	22	33.01	5.89	49.17
chr1	235110259	235111408	1150	685	25	37.82	5.34	46.7
chr1	235307454	235308751	1298	726	29	40.6	4.95	46.75
chr1	235368546	235369585	1040	466	25	32.99	4.45	49.19
chr1	235387444	235388276	833	544	20	36.39	4.67	47.18
chr1	235488306	235491251	2946	1378	86	92.21	5.09	36.67
chr1	235495282	235496463	1182	280	31	32.16	4.14	49.93
chr1	235746619	235747425	807	522	20	41.04	4.52	46.36
chr1	235929546	235930607	1062	691	25	42.79	6.16	47.35
chr1	236354039	236354856	818	273	18	31.39	4.93	50.18
chr1	236429471	236431367	1897	692	38	32.08	4.45	49.79
chr1	236768498	236770010	1513	1231	32	33.88	4.15	48.6
chr1	237028659	237029309	651	288	17	34.02	5.33	48.58
chr1	237394326	237395188	863	541	19	33.05	5.34	49.1
chr1	237606613	237607361	749	499	17	31.13	4.93	50.63
chr1	237710331	237711117	787	374	20	42.43	6.16	47.3
chr1	237791045	237792039	995	483	21	34.01	4.93	48.54
chr1	237814167	237815038	872	258	20	36.83	4.11	46.86
chr1	238172707	238173428	722	324	17	32.78	4.93	49.39
chr1	238495049	238495946	898	540	19	31.11	5.75	50.64
chr1	238618149	238619003	855	234	19	32.56	4.03	49.34
chr1	238721171	238722069	899	346	19	31.05	3.7	50.69
chr1	239788183	239789099	917	428	20	34.18	4.52	47.96
chr1	240190309	240191167	859	271	19	33.28	5.34	48.91
chr1	240571396	240572678	1283	784	27	33.98	4.95	48.57
chr1	240848133	240849411	1279	901	30	42.39	4.37	47.07
chr1	240886595	240887494	900	203	19	31	6.16	50.47
chr1	241290377	241291289	913	654	20	34.41	4.52	47.76
chr1	241361627	241362595	969	678	24	44.14	5.34	48.04
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chr1	241790046	241791214	1169	613	25	34.29	6.69	47.83
chr1	242636124	242636967	844	555	19	34.15	6.16	48
chr1	243557175	243558463	1289	465	28	40.34	6.77	46.89
chr1	243723650	243724769	1120	525	24	35.42	5.75	47.5
chr1	243797178	243798300	1123	414	25	39.28	5.34	46.46

chr1	244047744	244048846	1103	812	25	35.73	4.95	47.23
chr1	244898838	244899888	1051	770	24	39.16	5.34	46.17
chr1	245198100	245199271	1172	578	24	32.84	4.93	49.37
chr1	245227356	245228372	1017	414	21	32.85	5.34	49.36
chr1	245450121	245451010	890	659	20	35.75	4.52	47.03
chr1	245810093	245811324	1232	581	30	34.1	3.74	48.18
chr1	246051737	246052355	619	289	15	30.27	4.93	51.69
chr1	246624009	246625087	1079	461	25	41.78	4.11	47.1
chr1	246844316	246845285	970	539	21	30.19	4.09	51.74
chr1	247034846	247035481	636	287	17	38.38	6.52	46.36
chr1	247109368	247110275	908	495	21	39.03	4.93	46.21
chr1	247990870	247991864	995	486	20	30.06	4.52	51.48
chr1	248334070	248334967	898	252	20	35.28	4.93	47.36
chr1	248435114	248436003	890	316	19	30.05	4.38	51.46
chr1	248645704	248646677	974	410	23	36.29	5.84	46.97
chr1	248662328	248663372	1045	469	21	31.43	5.75	50.04
chr10	67739	68856	1118	555	26	43.76	5.75	47.71
chr10	98955	100186	1232	696	27	41.48	7.39	47.02
chr10	296210	297016	807	335	18	32.02	4.52	49.75
chr10	824000	824977	978	282	21	34.93	4.11	47.58
chr10	1089042	1090655	1614	246	38	44.96	3.77	48.76
chr10	1330305	1331220	916	625	20	34.24	6.16	47.9
chr10	1951391	1952427	1037	260	22	31.83	4.52	49.81
chr10	2247305	2248509	1205	516	24	31.29	5.75	50.33
chr10	2554308	2555133	826	544	19	35.24	5.75	47.26
chr10	2761096	2761905	810	287	18	31.85	4.93	49.8
chr10	2903272	2904228	957	288	20	32	4.11	49.74
chr10	3617006	3619037	2032	650	37	37.65	5.75	46
chr10	3689419	3691045	1627	1277	36	52.44	5.75	50.39
chr10	4000926	4001609	684	268	19	35.58	6.16	47.2
chr10	4139652	4140728	1077	589	24	37.71	6.16	46.49
chr10	4282795	4283595	801	384	18	32.38	5.75	49.75
chr10	4416761	4417695	935	375	20	33.18	4.11	49.11
chr10	4421907	4423093	1187	711	30	30.87	4	50.85
chr10	4437104	4438265	1162	612	27	45.45	5.75	49.74
chr10	4502916	4503746	831	566	21	44.13	5.75	47.89
chr10	4533624	4534582	959	570	20	31.9	5.75	49.83
chr10	4953927	4954911	985	577	21	34.55	5.75	47.78
chr10	4983953	4984740	788	534	18	33.15	4.52	49.12
chr10	5798281	5799570	1290	573	30	30.53	3.39	51.27
chr10	6244586	6245923	1338	721	32	56.54	7.8	53.59
chr10	6388864	6390475	1612	664	33	38.54	3.94	46.28
chr10	6542558	6543499	942	267	22	36.98	5.34	46.95
chr10	7163263	7164777	1515	856	36	35.74	4.67	47.11
chr10	7297160	7298825	1666	1130	36	40.51	4.74	46.98
chr10	7329015	7329984	970	241	22	30.19	4.09	51.74
chr10	7510260	7512859	2600	652	63	42.83	3.78	47.31
chr10	7878801	7879680	880	667	19	32.09	4.52	49.72
chr10	8312877	8313674	798	499	22	46.53	5.75	47.84
chr10	8697217	8698060	844	378	21	43.22	5.34	47.65
chr10	8742249	8743156	908	685	22	39.03	4.52	46.21
chr10	8793526	8794383	858	280	19	33.33	4.11	48.66

chr10	9026206	9026911	706	419	17	33.81	5.34	48.84
chr10	9472634	9473422	789	277	18	32.18	4.83	49.95
chr10	9508645	9509931	1287	731	26	34.83	5.34	47.53
chr10	9627950	9628953	1004	283	22	33.53	4.93	48.64
chr10	9784846	9786732	1887	703	47	79.62	5.34	60
chr10	9793472	9794907	1436	409	30	39.66	4.72	46.48
chr10	9834620	9835474	855	497	19	31.98	6.37	49.84
chr10	10666257	10667764	1508	627	31	37.41	4.57	46.65
chr10	10949505	10950180	676	341	16	31.17	4.52	50.55
chr10	12120942	12122228	1287	604	26	34.83	6.16	47.53
chr10	13824315	13825442	1128	735	23	31.19	4.52	50.51
chr10	14819098	14820033	936	290	21	37.33	4.52	46.7
chr10	16078710	16079542	833	607	18	30.55	4.52	51.23
chr10	16416843	16417827	985	496	20	30.56	4.93	51.26
chr10	16554517	16555375	859	611	20	37.63	4.52	45.86
chr10	17472242	17473138	897	439	22	39.72	5.34	46.59
chr10	17572995	17574200	1206	626	24	31.25	5.75	50.5
chr10	17656932	17657916	985	550	21	34.55	7.39	47.78
chr10	17700345	17701273	929	509	23	41.04	6.04	46.38
chr10	17863417	17864341	925	448	20	33.74	5.34	48.66
chr10	19389622	19390265	644	410	17	38.13	5.75	46.28
chr10	21235765	21237440	1676	1137	33	33.4	4.19	48.71
chr10	21371712	21372599	888	612	20	35.86	4.52	47.02
chr10	21887799	21889264	1466	1010	38	31.74	4.74	49.77
chr10	21923261	21924454	1194	535	30	40.77	5.98	46.55
chr10	21988972	21990321	1350	612	32	40.61	4.07	46.73
chr10	22011382	22012658	1277	773	35	32.93	3.42	49.33
chr10	22548292	22549051	760	365	17	30.48	4.52	51.27
chr10	22588266	22589184	919	444	21	38.35	6.16	46.36
chr10	23081374	23082467	1094	449	23	32.84	4.52	49.38
chr10	23114039	23114905	867	221	22	37.34	4.95	46.78
chr10	23394108	23395008	901	519	19	30.95	4.52	50.5
chr10	23441817	23443519	1703	582	35	44.77	4.52	48.89
chr10	23585895	23586876	982	486	20	30.71	4.93	51.01
chr10	23912507	23913361	855	492	22	42.47	4.52	47.34
chr10	24410758	24411651	894	254	22	39.91	6.16	46.62
chr10	25639381	25640103	723	446	17	32.72	4.52	49.39
chr10	26036186	26036887	702	417	17	34.07	6.57	48.38
chr10	26307719	26308832	1114	514	24	35.73	6.16	47.24
chr10	26587263	26588078	816	480	19	32.04	4.57	49.78
chr10	26761936	26763040	1105	631	23	30.64	7.17	51.19
chr10	26894634	26895804	1171	537	24	32.88	4.93	49.32
chr10	27397719	27399113	1395	587	28	37.14	6.57	46.97
chr10	27573630	27574533	904	618	21	39.28	6.57	46.47
chr10	27632717	27634785	2069	1488	45	34.5	4.1	47.66
chr10	27781713	27783211	1499	484	32	47.28	4.93	48.02
chr10	27847291	27848273	983	517	22	34.66	5.34	47.66
chr10	27880337	27881564	1228	660	28	45.84	5.34	50.08
chr10	28531131	28532004	874	505	22	41.2	6.16	46.62
chr10	28700847	28701576	730	383	19	41.68	4.52	47.15
chr10	28875486	28876336	851	272	21	42.74	5.75	47.45
chr10	29591827	29592832	1006	486	25	46.29	6.16	48.53

chr10	29765017	29765840	824	430	21	44.63	6.98	48.91
chr10	30290877	30291821	945	288	20	32.64	5.34	49.32
chr10	30485724	30486618	895	633	20	35.45	4.93	47.41
chr10	30541411	30542171	761	456	21	38.74	4.79	46.17
chr10	30762106	30763214	1109	740	25	38.86	4.43	46.29
chr10	30920470	30921174	705	377	17	30.42	4.57	51.34
chr10	31198130	31198822	693	325	18	35.66	5.33	47.23
chr10	31198896	31199824	929	638	21	37.75	4.93	46.67
chr10	31248690	31249270	581	290	17	39.16	6.47	46.24
chr10	31422115	31422643	529	264	15	36.81	5.43	46.82
chr10	31538079	31538754	676	390	18	40.73	6.16	46.55
chr10	31775256	31776238	983	655	21	33.01	4.78	49.17
chr10	32098438	32099280	843	458	20	38.64	5.34	46.11
chr10	32132068	32132834	767	269	18	30.32	5.65	51.57
chr10	32321078	32322036	959	279	24	44.8	6.57	48.95
chr10	32518900	32519724	825	398	19	35.3	4.93	47.33
chr10	32530365	32531193	829	541	20	39.56	5.34	46.78
chr10	32715997	32716861	865	385	20	37.26	4.52	46.48
chr10	32737804	32738818	1015	735	23	32.76	4.95	49.4
chr10	32744093	32745500	1408	638	29	40.26	5.34	46.76
chr10	32861256	32862259	1004	255	24	37.34	4.95	46.77
chr10	33029384	33030367	984	253	21	34.6	4.93	47.68
chr10	33170809	33171772	964	515	21	35.72	5.34	47.25
chr10	33220506	33222665	2160	675	48	38.9	4.36	46.25
chr10	33316350	33317046	697	262	17	34.4	5.75	47.76
chr10	33459267	33460194	928	268	20	33.57	4.93	48.57
chr10	33552069	33552749	681	285	17	31.97	4.57	49.81
chr10	33742676	33743486	811	523	22	45.57	6.98	50.04
chr10	34633062	34634117	1056	536	22	30.89	6.16	50.76
chr10	34801740	34802680	941	464	21	37.04	6.16	46.99
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chr10	35484086	35486951	2866	1626	66	69.89	4.91	52.46
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chr10	36692205	36693034	830	275	19	34.99	5.34	47.59
chr10	36990965	36991863	899	236	19	31.05	4.11	50.69
chr10	37010660	37011874	1215	441	25	34.53	5.75	47.72
chr10	37688634	37689489	856	521	19	33.45	5.75	48.63
chr10	38580877	38581934	1058	464	21	30.79	4.93	50.99
chr10	38944641	38945683	1043	677	27	36.7	5.82	46.99
chr10	42506945	42507809	865	236	20	33.25	4.57	48.93
chr10	42763507	42764780	1274	869	36	40.46	5.57	46.94
chr10	42829519	42830882	1364	538	29	42.48	6.16	47.24
chr10	43080390	43080960	571	285	16	37.66	6.57	46.06
chr10	43124494	43125358	865	587	20	36.86	5.71	46.78
chr10	43604321	43612321	8001	6833	251	80.26	5.25	56.6
chr10	43680346	43681264	919	666	20	30.21	4.19	51.75
chr10	43903586	43904797	1212	999	31	42.04	4.24	46.99
chr10	44262170	44263076	907	646	21	31.46	4.99	50.02
chr10	44497018	44497742	725	271	17	32.59	5.34	49.4
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chr10	45231791	45232686	896	449	19	31.21	4.93	50.51
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chr10	47141520	47145833	4314	2844	117	90.07	4.74	41.94
chr10	48360001	48360674	674	281	16	31.3	4.52	50.33
chr10	48469821	48470632	812	261	18	31.74	4.11	49.76
chr10	48907203	48908389	1187	780	26	39.87	6.16	46.65
chr10	49809004	49810858	1855	753	40	56.26	5.34	53.86
chr10	50157478	50158155	678	417	17	34.25	5.18	47.9
chr10	50295054	50295868	815	546	19	35.92	5.75	47.05
chr10	50410223	50411681	1459	506	35	45.03	5.65	49.09
chr10	50473727	50474601	875	589	19	32.37	5.34	49.85
chr10	50657706	50658541	836	589	19	30.34	4.14	51.6
chr10	51095487	51097407	1921	1311	43	48.88	5.1	50.43
chr10	51478935	51479816	882	267	24	33.24	5.29	49.06
chr10	52035644	52036629	986	538	20	30.51	4.93	51.28
chr10	52206035	52207108	1074	503	24	37.87	4.52	46.68
chr10	52629898	52631205	1308	737	28	41.45	6.16	46.99
chr10	52851606	52852640	1035	288	23	35.91	6.16	47.04
chr10	53497612	53498431	820	236	19	35.61	4.52	47.29
chr10	54395328	54396123	796	403	20	37.62	4.95	45.77
chr10	54516838	54517729	892	638	19	31.43	4.93	50
chr10	55328379	55329409	1031	501	21	32.13	5.34	49.78
chr10	55787614	55788513	900	431	19	31	4.11	50.47
chr10	55833164	55834135	972	296	21	35.27	6.98	47.3
chr10	56123533	56125149	1617	1365	33	41.46	4.11	47.05
chr10	56194986	56195671	686	270	17	31.64	4.57	49.89
chr10	56461394	56462534	1141	721	23	30.58	4.52	51.23
chr10	56852227	56853224	998	324	22	33.85	5.34	48.73
chr10	57510297	57511357	1061	371	22	30.64	5.75	51.13
chr10	58641862	58643672	1811	525	43	66.86	5.75	55.7
chr10	59483895	59485134	1240	651	26	37.11	6.16	46.93
chr10	59572140	59573437	1298	714	25	30.73	5.75	51.04
chr10	59958692	59959589	898	614	22	39.65	4.93	46.42
chr10	60051547	60053037	1491	781	35	44.96	6.49	48.82
chr10	60336132	60336992	861	270	19	33.16	4.52	49.11
chr10	61725928	61726767	840	458	18	30.16	4.93	51.72
chr10	61773907	61774795	889	407	20	35.81	5.34	47.08
chr10	61826145	61826885	741	513	17	30.74	4.03	50.97
chr10	62026644	62027708	1065	799	24	38.37	4.93	46.39
chr10	62583154	62583971	818	311	19	32.47	4.62	49.48
chr10	62845840	62846744	905	275	19	30.73	5.34	50.98
chr10	62974256	62975078	823	289	18	31.11	4.93	50.68
chr10	63175739	63176633	895	606	19	31.27	4.52	50.46
chr10	63207623	63208605	983	372	21	34.66	4.52	47.66
chr10	63247197	63248097	901	616	20	35.1	5.34	47.35
chr10	63259198	63260259	1062	627	21	30.6	6.57	51.21
chr10	63438390	63439632	1243	556	30	46.89	4.52	47.6
chr10	63449730	63450937	1208	676	29	45.7	4.95	49.77
chr10	63489200	63490139	940	446	20	32.91	4.52	49.24
chr10	63537159	63538128	970	284	21	35.38	4.93	47.52
chr10	63991215	63993055	1841	1300	36	34.54	4.09	47.74
chr10	64379068	64380018	951	282	21	36.46	4.93	47.14

chr10	64397376	64398527	1152	515	25	33.17	4.57	49.14
chr10	64450543	64451457	915	508	20	33.3	5.64	48.79
chr10	64764571	64765581	1011	658	21	33.16	4.11	49.1
chr10	64843721	64844983	1263	806	29	48.04	5.34	49.23
chr10	65730487	65731463	977	656	23	39.21	6.57	46.37
chr10	65863889	65864768	880	215	19	32.09	4.11	49.72
chr10	66257370	66258144	775	490	18	33.95	4.93	48.68
chr10	66351025	66352023	999	272	23	37.93	4.52	46.58
chr10	66378614	66379808	1195	664	24	31.75	4.52	49.81
chr10	66449159	66449983	825	540	20	30.33	4.11	51.65
chr10	66546445	66547946	1502	911	30	39.49	5.75	46.97
chr10	66742245	66742918	674	384	16	31.3	5.34	50.33
chr10	66790806	66791627	822	356	20	34.75	4.84	47.6
chr10	66795366	66796643	1278	624	29	47.17	5.34	47.7
chr10	67234711	67235676	966	675	22	35.6	5.75	47.23
chr10	67557970	67559741	1772	548	32	41.04	4.08	46.4
chr10	67706077	67707443	1367	571	31	50.46	5.34	51.88
chr10	67753233	67755037	1805	669	44	43.4	4.36	47.89
chr10	68142872	68143868	997	547	24	42.37	4.93	47.05
chr10	68322545	68323733	1189	482	25	35.81	7.8	47.14
chr10	68557572	68558245	674	412	18	34.39	5.41	47.79
chr10	69218420	69219285	866	324	20	34.35	4.67	47.86
chr10	69499408	69500547	1140	754	29	43.74	6.64	47.86
chr10	69895954	69896908	955	548	26	42.17	4.79	47.01
chr10	69972096	69973066	971	425	23	35.2	4.19	47.16
chr10	70088660	70090539	1880	1222	47	33.02	4.18	49.16
chr10	70450440	70451826	1387	878	37	39.04	4.57	46.25
chr10	70714030	70715587	1558	1122	38	41.47	5.39	47.04
chr10	70770554	70771277	724	257	17	32.66	5.34	49.29
chr10	71901215	71902226	1012	413	23	37.19	4.11	46.84
chr10	72399253	72400733	1481	885	31	38.69	3.81	46.2
chr10	72873863	72874761	899	249	19	31.05	4.11	50.69
chr10	73171199	73172199	1001	291	21	33.69	5.34	48.59
chr10	73608115	73609374	1260	606	34	46.67	5.22	47.45
chr10	73656007	73656944	938	650	21	37.22	4.52	46.81
chr10	73718536	73719668	1133	503	26	42.88	6.16	47.3
chr10	74077904	74079914	2011	681	44	31.14	4.21	50.66
chr10	74324396	74325215	820	380	22	41.76	7.78	47.08
chr10	74701769	74702783	1015	520	25	45.71	6.57	49.85
chr10	74929548	74931032	1485	617	32	38.88	4.37	46.26
chr10	75676159	75677083	925	342	20	33.74	4.93	48.66
chr10	76017375	76019165	1791	519	42	58.92	4.52	52.78
chr10	76050599	76051584	986	420	25	40.57	5.52	46.84
chr10	76372570	76373705	1136	689	28	37.39	5.37	46.67
chr10	76696578	76697818	1241	666	27	32.71	5.05	49.4
chr10	76745252	76746067	816	306	24	38.82	4.44	46.18
chr10	77091746	77092327	582	291	15	32.66	6.16	49.32
chr10	77311062	77312015	954	492	21	36.29	6.16	46.94
chr10	77402316	77403374	1059	504	21	30.74	4.93	50.97
chr10	77444344	77445040	697	287	20	49.42	6.16	51.67
chr10	78242505	78244254	1750	623	32	35.19	4.08	47.13
chr10	78277191	78278235	1045	469	22	31.43	4.93	50.04



chr10	78356264	78357770	1507	835	33	46.86	5.34	47.24
chr10	79264663	79266077	1415	661	33	31.28	4.36	50.4
chr10	79433736	79434957	1222	247	28	46.19	5.34	48.74
chr10	79803477	79804599	1123	653	25	39.28	4.93	46.46
chr10	81016586	81017352	767	512	18	30.83	5.33	50.89
chr10	81028070	81029093	1024	428	22	32.49	5.75	49.45
chr10	81530185	81531625	1441	1018	34	46.5	4.47	48.01
chr10	81566331	81569053	2723	600	63	67	4.79	56.16
chr10	82077451	82077983	533	266	15	37.66	6.16	46.06
chr10	82786243	82787435	1193	547	24	31.85	5.34	49.77
chr10	82938261	82939432	1172	427	27	44.86	5.34	48.94
chr10	83042697	83043488	792	504	18	32.91	5.34	49.22
chr10	83172640	83173387	748	379	19	34.42	4.76	47.81
chr10	83473217	83474293	1077	737	25	41.89	6.16	46.92
chr10	83611116	83612017	902	456	21	39.4	6.98	46.96
chr10	83680035	83680802	768	456	21	48.85	6.57	50.59
chr10	83801777	83803014	1238	685	31	37.17	4.05	46.92
chr10	83853517	83854741	1225	677	26	37.87	5.34	46.7
chr10	83972065	83972832	768	479	20	31.87	4.27	49.75
chr10	89095757	89096580	824	190	21	40.2	4.57	46.63
chr10	90618896	90619689	794	513	18	32.79	6.57	49.41
chr10	91010995	91012050	1056	344	28	56.99	6.16	52.87
chr10	97283922	97284976	1055	529	21	30.94	6.16	50.6
chr10	98318306	98319187	882	639	19	31.98	5.75	49.78
chr10	101047761	101048671	911	582	21	38.84	5.34	46.22
chr10	101767873	101770747	2875	549	62	55.23	5.17	53.19
chr10	102633830	102634626	797	275	18	32.61	4.52	49.4
chr10	102650673	102651501	829	291	20	33.75	4.42	48.68
chr10	104459549	104460356	808	414	18	31.62	5.3	49.94
chr10	104802096	104803727	1632	284	30	40.77	4.52	46.49
chr10	105244795	105245907	1113	706	26	39.1	6.09	46.37
chr10	105969418	105970320	903	283	20	34.99	4.11	47.57
chr10	106057661	106058507	847	563	21	41.22	5.18	46.71
chr10	106198267	106199335	1069	557	21	30.26	5.75	51.61
chr10	106200420	106201235	816	516	18	31.51	3.7	49.84
chr10	106759980	106760887	908	627	20	34.7	6.16	47.74
chr10	107461704	107463300	1597	1105	34	46.15	5.75	49.06
chr10	107587066	107587948	883	274	22	40.61	5.34	46.69
chr10	108104789	108105564	776	491	18	33.89	5.75	48.57
chr10	108394329	108395091	763	473	18	31.07	4.57	50.74
chr10	109299201	109300164	964	607	20	31.63	5.34	49.87
chr10	109474206	109475417	1212	460	28	34.48	5.14	47.75
chr10	111167450	111168507	1058	496	21	30.79	5.75	50.99
chr10	111439821	111440863	1043	640	22	31.53	4.93	49.89
chr10	111472356	111473122	767	576	17	30.07	4.11	51.5
chr10	111824193	111825103	911	619	19	30.42	4.52	51.31
chr10	112058063	112060613	2551	1208	57	36.56	3.74	46.89
chr10	112416170	112417113	944	632	20	32.69	6.16	49.42
chr10	112448536	112449748	1213	634	24	30.93	6.16	50.58
chr10	112679926	112681787	1862	1236	41	34.7	4.67	47.78
chr10	112775881	112777116	1236	578	25	31.74	5.18	49.78
chr10	112828939	112830361	1423	1219	34	32.46	3.96	49.45

chr10	113118689	113119572	884	284	19	30.93	4.43	50.59
chr10	113287689	113288628	940	665	21	37.1	4.93	46.88
chr10	113300735	113301744	1010	578	27	55.47	5.75	53.55
chr10	113450653	113451464	812	286	19	33.96	3.94	48.62
chr10	113686507	113687136	630	299	16	30.92	4.95	50.58
chr10	113899711	113901702	1992	692	41	42.23	4.01	46.96
chr10	113963300	113964446	1147	352	28	34.89	4.24	47.67
chr10	115586579	115587719	1141	697	25	37.12	4.83	46.95
chr10	115626497	115628294	1798	1451	40	34.62	4.36	47.78
chr10	116353158	116354217	1060	419	22	30.69	4.93	51.01
chr10	116446900	116447679	780	267	18	33.64	4.93	48.75
chr10	116607047	116607994	948	697	21	36.63	4.52	46.89
chr10	116709548	116710958	1411	535	31	34.04	3.73	48.51
chr10	116713554	116714786	1233	869	31	45.16	4.84	48.87
chr10	116727760	116729093	1334	800	31	44.75	5.58	48.89
chr10	117032614	117033896	1283	1013	32	60.11	5.34	55.12
chr10	117142878	117144221	1344	697	28	39.61	5.75	46.59
chr10	117379523	117380343	821	594	18	31.22	5.34	50.51
chr10	118182358	118183764	1407	707	30	44.18	6.98	47.99
chr10	118279240	118279832	593	274	15	32.02	5.34	49.77
chr10	118695189	118696285	1097	491	23	32.69	5.75	49.38
chr10	118815439	118816933	1495	575	34	51.53	4.93	51.72
chr10	118817941	118818953	1013	290	23	32.87	5.71	49.3
chr10	119063687	119064332	646	266	16	33.14	6.16	49.15
chr10	119079350	119080749	1400	646	33	43.28	4.74	47.86
chr10	119236736	119238066	1331	531	27	36.46	5.75	47.14
chr10	119557495	119558257	763	277	17	30.3	6.16	51.54
chr10	119595996	119597019	1024	264	26	31.94	5.29	49.74
chr10	119906354	119907568	1215	671	24	30.84	5.34	50.89
chr10	120173182	120173918	737	260	18	36.39	4.52	47.16
chr10	120262704	120263426	723	327	19	42.2	6.16	47.1
chr10	120559749	120560927	1179	688	30	43.82	4.79	47.9
chr10	120798287	120799349	1063	591	26	39.25	4.37	46.39
chr10	121310717	121311708	992	497	20	30.21	4.93	51.73
chr10	121410024	121411549	1526	507	39	53.64	5.48	51.95
chr10	122160696	122161756	1061	280	22	30.64	5.34	51.13
chr10	122496997	122497767	771	442	18	34.2	5.75	47.92
chr10	122694129	122695181	1053	461	22	31.03	6.16	50.5
chr10	123970617	123971661	1045	560	21	31.43	5.34	50.04
chr10	125094854	125095901	1048	564	21	31.28	6.57	50.39
chr10	125361498	125362278	781	517	19	38.11	4.52	46.38
chr10	126404914	126405916	1003	534	21	32.56	4.43	49.38
chr10	126472646	126473629	984	272	22	32.95	5.97	49.3
chr10	126490318	126492942	2625	1930	52	33.15	3.7	49.15
chr10	126527790	126528386	597	273	16	36.66	6.16	46.99
chr10	126786697	126787803	1107	590	35	84.02	11.5	47.62
chr10	127266061	127267093	1033	620	24	35.67	6.09	47.19
chr10	127343119	127344136	1018	718	21	32.8	5.75	49.43
chr10	127656980	127657787	808	538	19	36.36	6.16	47.14
chr10	127775078	127776510	1433	661	34	55.09	6.57	53.04
chr10	128050284	128051272	989	290	20	30.36	4.11	51.62
chr10	128478391	128479149	759	280	18	34.95	5.75	47.68

chr10	129140038	129140829	792	426	20	42.08	5.34	46.92
chr10	131794496	131796359	1864	373	38	51.95	6.57	51.19
chr10	132158291	132159122	832	406	316	3100	105.97	0
chr10	132616767	132617309	543	271	15	37.66	6.16	46.06
chr10	133096745	133097743	999	447	21	32.77	5.64	49.42
chr10	133875824	133876653	830	591	18	30.71	4.11	50.99
chr10	133941067	133942321	1255	605	25	32.64	6.98	49.33
chr10	134198600	134199330	731	476	21	51.88	6.98	50.81
chr10	134486780	134488003	1224	568	25	34.09	6.98	48.19
chr10	135237056	135237561	506	253	17	54.21	6.98	53.5
chr10	135264697	135265378	682	350	19	31.01	5.29	50.49
chr10	135296927	135299665	2739	2358	60	71.78	4.5	56
chr10	135507391	135508241	851	576	23	42.86	5.71	47.28
chr11	180271	181631	1361	283	41	58.18	5.9	53.78
chr11	332492	333170	679	305	17	35.62	6.16	47.31
chr11	770219	771039	821	541	18	31.22	4.93	50.51
chr11	1341594	1342734	1141	278	27	46.71	5.34	47.48
chr11	2250140	2251038	899	261	19	31.05	4.11	50.69
chr11	2408121	2409689	1569	594	38	64.2	5.34	54.12
chr11	2631797	2632625	829	539	18	30.77	4.11	50.95
chr11	3069864	3070635	772	285	19	37.1	6.37	46.99
chr11	3715885	3717406	1522	1246	34	35.99	3.77	47.14
chr11	3752828	3753582	755	500	17	30.77	4.93	50.95
chr11	4283224	4284257	1034	280	23	35.97	4.52	47.03
chr11	4475032	4475719	688	251	16	30.42	4.93	51.34
chr11	5018158	5018762	605	239	16	36.06	5.75	47.01
chr11	5192954	5193835	882	240	22	40.68	6.16	46.47
chr11	5295911	5296764	854	575	19	33.57	5.34	48.6
chr11	5358543	5359856	1314	711	26	33.58	7.39	48.67
chr11	5525575	5526492	918	286	19	30.05	4.52	51.47
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chr11	7037722	7038456	735	472	17	31.97	4.93	49.85
chr11	7152300	7153359	1060	283	23	34.58	4.93	47.71
chr11	7219207	7220186	980	504	20	30.81	4.93	50.95
chr11	7808921	7809837	917	535	20	30.31	3.81	51.55
chr11	7993897	7994867	971	596	21	35.32	4.11	47.45
chr11	8486168	8487468	1301	596	26	34.17	6.16	48.01
chr11	8498003	8499676	1674	330	32	38.9	5.34	46.23
chr11	8553550	8554493	944	654	21	36.86	4.93	46.73
chr11	8610891	8611716	826	583	19	35.24	4.11	47.26
chr11	9071943	9072842	900	629	19	31	4.52	50.47
chr11	9589512	9591043	1532	693	45	46.35	5.53	48.4
chr11	9653437	9654707	1271	781	30	32.06	4.67	49.81
chr11	9993861	9995077	1217	568	31	45.38	6.51	49.64
chr11	10094736	10096522	1787	796	38	44.32	4.14	48.19
chr11	10264482	10265877	1396	576	31	48.81	4.52	50.58
chr11	10779568	10781197	1630	999	37	56.34	5.34	53.77
chr11	10878887	10880511	1625	399	36	39.2	4.19	46.3
chr11	10976544	10977269	726	277	20	47.03	5.75	47.52
chr11	11267721	11268671	951	580	69	237.7	15.54	18.18
chr11	11421509	11422988	1480	399	30	40.53	4.11	46.86

chr11	11619590	11620317	728	219	19	37.79	4.57	46.7
chr11	11688436	11689135	700	497	17	34.2	4.52	47.93
chr11	12317291	12318062	772	312	19	38.71	4.93	46.28
chr11	12931063	12931918	856	581	19	33.45	4.52	48.63
chr11	13155046	13155824	779	291	18	33.7	5.75	48.57
chr11	13195496	13196531	1036	273	25	44.38	4.93	48.52
chr11	13412442	13413558	1117	401	29	43.75	5.14	47.8
chr11	13676101	13677128	1028	339	24	30.04	4.11	51.45
chr11	13764730	13765581	852	288	19	33.68	6.57	48.55
chr11	14467973	14469402	1430	272	30	43	4.93	47.49
chr11	14667186	14668412	1227	622	25	33.95	6.16	48.63
chr11	14985228	14986317	1090	679	32	74.68	7.8	58.75
chr11	15373159	15373975	817	291	18	31.45	4.93	50
chr11	15751521	15752575	1055	505	22	30.94	6.16	50.6
chr11	17095759	17097992	2234	829	47	54.4	5.3	53.98
chr11	17172761	17176014	3254	555	71	40.44	3.71	46.91
chr11	19171568	19173138	1571	519	33	43.64	4.93	47.8
chr11	19414767	19415680	914	269	20	34.35	4.93	47.87
chr11	20464100	20466992	2893	2552	68	67.66	4.65	54.61
chr11	20486540	20488258	1719	1165	37	30.82	4.44	50.95
chr11	20500257	20501241	985	428	24	33.52	4.54	48.63
chr11	20943268	20944036	769	501	18	30.19	4.51	51.69
chr11	20995273	20996073	801	280	19	36.8	6.16	46.76
chr11	21043598	21044269	672	396	17	36.11	6.57	46.95
chr11	21067405	21068443	1039	455	23	35.69	5.75	47.19
chr11	21958985	21959899	915	623	19	30.21	6.16	51.69
chr11	22085879	22086588	710	408	23	54.22	6.09	54.11
chr11	22991390	22992283	894	612	21	30.1	3.77	51.59
chr11	23287933	23288923	991	539	20	30.26	5.34	51.67
chr11	23399259	23400308	1050	489	24	39.22	4.52	46.4
chr11	23845141	23845914	774	265	19	38.19	4.48	46.31
chr11	24544415	24545458	1044	584	23	31.24	6.85	50.48
chr11	24750604	24751948	1345	718	28	39.56	6.16	46.76
chr11	25987600	25988264	665	374	16	31.88	4.11	49.82
chr11	26049416	26050963	1548	1319	36	49.19	4.52	50.78
chr11	26548550	26549474	925	333	21	37.99	5.34	46.41
chr11	26555765	26557268	1504	671	37	63.85	7.8	53.2
chr11	26729493	26730355	863	288	21	41.93	6.98	46.96
chr11	27454161	27456112	1952	288	37	40.83	5.34	46.34
chr11	27712326	27713143	818	331	20	36.16	6.47	46.99
chr11	28041855	28042894	1040	599	26	48.64	4.93	49.9
chr11	28166764	28168052	1289	651	26	32.88	6.77	49.32
chr11	28419125	28420186	1062	782	21	30.6	4.93	51.21
chr11	28427739	28429220	1482	1218	34	31.18	4.05	50.54
chr11	28849151	28850035	885	242	19	31.81	4.11	49.78
chr11	29029391	29030278	888	641	19	31.65	4.11	49.86
chr11	29301646	29302866	1221	518	24	30.57	6.98	51.24
chr11	29589687	29590608	922	588	20	33.9	4.11	48.66
chr11	29877918	29878998	1081	636	24	37.49	7.39	46.03
chr11	29980607	29981213	607	328	16	35.91	6.16	47.02
chr11	30179084	30180254	1171	449	25	36.72	4.93	47.04
chr11	30365939	30367615	1677	1349	34	35.9	5.77	47.01

chr11	30637472	30638609	1138	524	23	30.72	6.16	51.04
chr11	30649824	30650638	815	583	18	31.56	5.34	49.92
chr11	30995024	30995980	957	531	22	36.11	6.16	46.95
chr11	31372922	31373791	870	578	19	32.65	4.93	49.31
chr11	31386290	31387958	1669	992	32	37.71	4.83	46.53
chr11	31452706	31454266	1561	905	37	60.33	6.16	55.04
chr11	31506677	31507517	841	597	19	34.33	5.34	47.74
chr11	31540188	31540948	761	498	19	36.66	5.45	47.01
chr11	31586716	31588389	1674	1271	40	58.81	5.33	52.28
chr11	31645144	31646472	1329	567	28	38.29	6.37	46.38
chr11	32618760	32619680	921	268	21	34.65	4.62	47.67
chr11	32960707	32962028	1322	838	33	35.95	4.98	47.09
chr11	33092441	33093295	855	590	19	33.51	5.34	48.65
chr11	33253895	33255260	1366	751	26	31.29	5.75	50.33
chr11	33377676	33378700	1025	745	23	31.05	5.58	50.6
chr11	33455188	33456146	959	582	20	31.9	5.75	49.83
chr11	33856479	33857084	606	278	15	31.13	5.75	50.65
chr11	34799312	34800345	1034	389	23	31.76	4.57	49.86
chr11	35197554	35198394	841	244	18	30.11	5.34	51.58
chr11	35637436	35639028	1593	825	40	44.74	4.05	48.86
chr11	35660543	35661533	991	552	20	30.26	4.11	51.67
chr11	36118672	36119765	1094	584	25	40.91	5.75	46.35
chr11	36515630	36516524	895	357	22	39.84	4.93	46.65
chr11	36785201	36786025	825	534	18	30.99	4.93	50.47
chr11	37813235	37814098	864	615	19	32.99	4.11	49.23
chr11	38074888	38076440	1553	362	35	52.41	4.11	50.62
chr11	38202890	38203926	1037	268	28	52.58	5.33	50.4
chr11	38300765	38301714	950	374	22	36.52	6.57	46.93
chr11	38590739	38591836	1098	446	23	32.64	5.34	49.32
chr11	39190893	39191579	687	264	16	30.49	4.52	51.31
chr11	39865731	39866786	1056	384	22	30.89	5.34	50.76
chr11	39887050	39888087	1038	752	21	31.78	4.11	49.85
chr11	41192151	41192983	833	416	19	31.04	4.57	50.55
chr11	41630491	41631407	917	600	21	38.48	4.93	46.32
chr11	41771830	41772718	889	473	19	31.59	4.93	49.94
chr11	41835303	41836501	1199	772	25	35.31	6.16	47.42
chr11	42964887	42965744	858	426	19	33.33	5.75	48.66
chr11	43147907	43148990	1084	654	23	33.34	4.52	48.69
chr11	43444055	43444968	914	283	20	32.17	4.72	49.93
chr11	43449628	43450867	1240	568	27	36.1	4.95	47.02
chr11	43501267	43503170	1904	604	39	34.69	4.11	47.78
chr11	43591468	43592962	1495	1234	32	47.49	4.11	48.5
chr11	43664689	43665570	882	256	26	54.84	5.71	54.1
chr11	43968409	43969537	1129	601	25	38.95	4.93	46.11
chr11	44587381	44588335	955	693	26	39.2	4.58	46.31
chr11	45951746	45952955	1210	582	26	30.15	6.42	51.67
chr11	45980613	45982036	1424	939	36	37.72	4.81	46.56
chr11	46104055	46105480	1426	457	35	43.63	4.41	47.63
chr11	46129488	46130334	847	608	21	33.98	4.19	48.59
chr11	46621649	46622822	1174	521	32	52.3	5.82	51
chr11	47334161	47335023	863	593	19	31.53	3.98	49.92
chr11	47377280	47378127	848	289	19	30.19	4.19	51.72

chr11	47560095	47561255	1161	554	29	41.03	4.79	46.31
chr11	47835707	47836942	1236	764	33	41.51	4.71	47.22
chr11	47898276	47899491	1216	474	26	35	7.39	47.63
chr11	47955286	47957213	1928	1259	39	41.3	5.65	46.92
chr11	48317245	48317985	741	426	17	31.61	5.75	49.92
chr11	48479877	48481103	1227	517	29	50.2	6.16	51.31
chr11	48762890	48763953	1064	424	21	30.5	6.16	51.32
chr11	48899584	48900483	900	288	25	41.12	5.09	46.37
chr11	49118791	49119638	848	469	22	42.94	5.34	47.42
chr11	49186261	49187875	1615	1098	33	31.82	4.11	49.81
chr11	50230042	50231066	1025	577	21	32.44	4.11	49.56
chr11	50686414	50687470	1057	313	24	36.31	5.9	47
chr11	50779688	50780752	1065	613	23	34.32	5.75	47.79
chr11	51176992	51178298	1307	445	30	49.72	4.93	51.84
chr11	51380276	51381108	833	493	18	30.55	4.52	51.23
chr11	54892141	54893372	1232	525	27	30.08	4.79	51.55
chr11	54904974	54905864	891	266	21	40.1	6.98	46.56
chr11	54976587	54977982	1396	532	31	42.99	3.42	47.38
chr11	55922575	55923787	1213	478	24	30.93	6.98	50.58
chr11	56222601	56223807	1207	631	25	34.92	4.93	47.6
chr11	56504197	56505250	1054	568	21	30.98	4.93	50.46
chr11	58112975	58114310	1336	735	29	43.95	6.16	47.74
chr11	58129962	58130872	911	621	20	30.64	4.19	51.17
chr11	58179053	58179658	606	319	16	35.98	5.75	47.08
chr11	58179738	58181027	1290	524	32	44.81	5.48	48.98
chr11	58239158	58239884	727	486	17	32.47	5.75	49.49
chr11	58576351	58577147	797	250	18	32.61	4.11	49.4
chr11	58638793	58640573	1781	1321	36	43.96	5.69	47.83
chr11	58790956	58791577	622	210	16	30.99	4.89	50.5
chr11	59066980	59067798	819	574	18	31.33	4.93	50.21
chr11	59192402	59193299	898	289	23	44.23	5.75	48.23
chr11	59255613	59256412	800	339	20	41.52	6.57	47.27
chr11	59471578	59472547	970	407	20	31.32	4.93	50.27
chr11	59736119	59737188	1070	527	21	30.21	4.93	51.72
chr11	59788000	59788958	959	635	23	40.3	5.34	46.92
chr11	59904591	59905324	734	453	17	32.04	5.75	49.74
chr11	59991986	59992719	734	461	20	36.32	4.45	47.02
chr11	60032743	60034228	1486	1015	32	34.43	3.77	47.78
chr11	60044850	60045634	785	269	18	33.33	4.93	48.72
chr11	60216360	60217627	1268	746	30	31.97	4.65	49.83
chr11	60375027	60375897	871	279	19	32.59	5.34	49.42
chr11	60379087	60380053	967	396	21	34.5	4.03	47.67
chr11	60865740	60866395	656	410	16	32.47	5.34	49.5
chr11	62585558	62586500	943	499	21	36.92	6.57	46.83
chr11	62591640	62592377	738	494	17	31.79	3.7	49.81
chr11	62606677	62608248	1572	939	38	39.24	4.36	46.46
chr11	62811480	62812490	1011	342	25	45.97	6.57	49.65
chr11	63420565	63421515	951	444	26	49.54	7.99	51.28
chr11	63438299	63440028	1730	1199	35	37.61	4.57	45.73
chr11	64343837	64344683	847	380	20	38.39	5.75	46.28
chr11	64656450	64657230	781	281	18	33.58	4.52	48.63
chr11	64971774	64972821	1048	552	21	31.28	5.34	50.39

chr11	65045159	65045939	781	257	18	33.58	4.52	48.63
chr11	65547335	65548694	1360	508	36	56.19	5.02	53.7
chr11	65755594	65757114	1521	1275	33	38.71	5.96	46.22
chr11	66440071	66441735	1665	519	31	30.21	3.97	51.74
chr11	67084974	67086534	1561	674	47	31.84	4.49	49.75
chr11	67092446	67094185	1740	631	30	39.52	4.11	46.94
chr11	67452938	67454261	1324	565	30	48.73	6.98	50.37
chr11	68737811	68738652	842	493	18	30.05	5.34	51.39
chr11	69375428	69376164	737	279	18	36.39	6.57	47.16
chr11	69713487	69714324	838	563	18	30.27	4.93	51.68
chr11	71892251	71893380	1130	587	23	31.1	5.75	50.62
chr11	73148785	73149733	949	221	21	36.57	4.52	46.89
chr11	73273293	73274212	920	329	20	30.15	4.57	51.67
chr11	73427764	73429130	1367	831	35	54.92	4.47	53.61
chr11	73620815	73621783	969	679	21	31.38	3.81	50.22
chr11	74167048	74167808	761	357	19	39.47	6.16	47.04
chr11	74468086	74468960	875	595	21	41.13	6.16	46.39
chr11	74779547	74780993	1447	813	34	54.27	6.98	54.23
chr11	75185912	75187718	1807	504	47	37.14	4.48	46.95
chr11	75259134	75259899	766	211	17	30.13	3.7	51.65
chr11	75272689	75273571	883	622	19	31.92	5.34	49.72
chr11	75678060	75679067	1008	413	23	33.75	5.77	48.68
chr11	75937640	75938404	765	516	17	30.19	5.34	51.7
chr11	77565524	77566648	1125	567	23	31.34	5.34	50.19
chr11	77756894	77757767	874	523	19	32.42	5.75	49.55
chr11	78054408	78056463	2056	265	45	61.49	5.34	54
chr11	78838958	78840419	1462	1058	32	42.45	3.76	47.4
chr11	79216032	79217070	1039	698	22	31.73	5.75	49.74
chr11	79299334	79300293	960	633	20	31.84	4.11	49.73
chr11	79303348	79304460	1113	648	28	47.4	5.71	48.34
chr11	79384833	79385765	933	441	25	46.22	6.09	48.66
chr11	79454201	79455586	1386	741	30	31.98	3.73	49.85
chr11	79463397	79464948	1552	902	35	30.35	3.39	51.61
chr11	79514849	79515819	971	267	25	48.64	5.34	49.84
chr11	79533005	79534308	1304	706	25	30.47	6.57	51.25
chr11	79696707	79698713	2007	839	42	31.49	3.74	49.91
chr11	79897702	79899161	1460	840	35	53.08	6.62	51.67
chr11	79964727	79966229	1503	290	33	41.21	4.19	46.72
chr11	80012186	80013732	1547	1275	32	44.82	4.52	48.91
chr11	80478222	80480060	1839	1297	34	35.46	4.93	47.41
chr11	80488580	80489284	705	484	19	41.26	6.69	46.89
chr11	80497218	80498787	1570	1179	32	32.75	4.59	49.36
chr11	81045800	81047419	1620	606	31	35.76	4.57	47.11
chr11	81273197	81274004	808	403	21	30.4	4.05	51.48
chr11	81274010	81275627	1618	1352	31	36.64	4.62	47.02
chr11	81486018	81487233	1216	755	31	49.4	4.69	51.37
chr11	81535073	81536461	1389	428	37	32.83	3.69	49.43
chr11	81600283	81601366	1084	282	26	35.44	4.89	47.42
chr11	81662237	81663897	1661	1353	40	42.7	5.39	47.48
chr11	81729247	81730704	1458	971	33	43.5	4.95	48.15
chr11	81749706	81751605	1900	1086	47	54.92	5.98	53.5
chr11	81769332	81770721	1390	584	31	30.6	4.44	51.25

chr11	81889176	81890414	1239	673	30	33.72	4.36	48.64
chr11	82054627	82056263	1637	824	41	36.63	4.2	46.98
chr11	82068500	82069747	1248	764	29	30.03	4.67	51.49
chr11	82118654	82120972	2319	829	45	41.98	4.57	47.14
chr11	82225406	82226921	1516	1030	31	34.04	4.37	48.53
chr11	82537224	82539284	2061	1198	53	42.82	4.28	47.42
chr11	82569873	82573477	3605	3244	89	30.27	3.31	51.65
chr11	82855604	82859690	4087	2092	108	50.15	4.34	51.44
chr11	82951070	82952877	1808	1065	51	41.33	4.16	46.88
chr11	83079108	83081078	1971	614	41	40.91	5.82	46.39
chr11	83138225	83139404	1180	564	26	32.84	4.74	49.37
chr11	83148846	83150149	1304	677	35	53.54	4.54	52.02
chr11	83220096	83221596	1501	897	31	33.3	3.57	48.82
chr11	83395458	83399042	3585	2894	84	30.24	3.45	51.73
chr11	83576586	83578276	1691	654	36	36.93	3.53	46.86
chr11	83634945	83636695	1751	396	40	31.23	4.06	50.5
chr11	83674318	83675170	853	640	20	35.74	4.33	47.12
chr11	83915044	83916865	1822	1060	44	37.12	5.27	46.93
chr11	84005126	84006457	1332	744	31	34.67	6.46	47.78
chr11	84467066	84470474	3409	2572	89	40.63	3.63	46.72
chr11	84812470	84816279	3810	2568	108	41.41	4.83	47
chr11	84913278	84919165	5888	5160	157	34.02	4.4	48.59
chr11	84933942	84939822	5881	5258	149	43.66	4.07	47.91
chr11	85021377	85025658	4282	1783	122	40.04	3.09	46.61
chr11	85199101	85204443	5343	4082	150	49.33	3.94	51.19
chr11	85276460	85280175	3716	2887	104	33.05	3.08	49.09
chr11	85878612	85881547	2936	658	104	49.99	3.41	51.64
chr11	86342795	86345090	2296	1590	67	34.77	4.15	47.61
chr11	86680226	86683088	2863	464	93	34.41	2.74	47.76
chr11	86778924	86787069	8146	3808	269	61.47	3.33	54.18
chr11	87241215	87244377	3163	896	85	30.16	3.44	51.69
chr11	87255735	87259044	3310	2021	88	35.73	3.45	47.17
chr11	87497579	87499843	2265	1421	71	30.78	4.37	50.98
chr11	87624123	87626512	2390	1839	82	43.75	3.05	47.89
chr11	87783321	87785433	2113	626	61	41.14	4.52	46.38
chr11	87949404	87953331	3928	760	99	35.19	3.97	47.15
chr11	88227959	88232361	4403	2642	117	35.61	3.22	47.31
chr11	88237817	88239729	1913	1367	63	38.12	3.61	46.32
chr11	88247729	88252959	5231	4541	140	31.35	3.42	50.23
chr11	88261368	88266019	4652	285	152	33.4	2.65	48.72
chr11	88464609	88468458	3850	494	107	34.34	3.88	47.9
chr11	88504141	88508688	4548	2141	119	32.5	3.22	49.42
chr11	88515882	88518116	2235	776	63	35.45	3.47	47.41
chr11	88532863	88536312	3450	2753	86	39.11	4.76	46.28
chr11	88705286	88706943	1658	950	51	30.82	3.81	50.96
chr11	88756756	88760265	3510	634	94	38.87	4.07	46.23
chr11	88899273	88902859	3587	1732	101	31.2	3.23	50.55
chr11	88915654	88918730	3077	512	85	32.69	2.82	49.39
chr11	88945383	88950855	5473	3633	146	32.65	3.42	49.36
chr11	88995873	88998918	3046	834	92	38.2	4.19	46.44
chr11	89155165	89157387	2223	1594	68	40.66	3.74	46.6
chr11	89336327	89340526	4200	3639	104	41.87	3.93	47.11



chr11	89694588	89695788	1201	493	27	31.59	5.48	50.01
chr11	89705394	89706172	779	276	18	33.7	5.75	48.57
chr11	89718556	89721388	2833	2101	66	41.68	3.62	47.18
chr11	89754467	89758930	4464	3091	117	30.33	3.74	51.57
chr11	89841810	89844235	2426	538	70	32.12	3.83	49.78
chr11	89922181	89924405	2225	1341	71	30.98	4.12	50.45
chr11	90040288	90041883	1596	818	47	30.02	4.07	51.52
chr11	90101931	90107111	5181	1133	133	31.38	3.79	50.19
chr11	90128014	90131010	2997	2444	83	30.07	4.36	51.46
chr11	90202058	90205922	3865	1939	112	46.94	4.23	47.62
chr11	90208168	90210592	2425	1506	77	50.33	3.97	51.91
chr11	90405372	90408145	2774	644	75	50.99	3.91	51.7
chr11	90821443	90824378	2936	1689	89	49.19	3.74	50.84
chr11	91003630	91006489	2860	2273	85	50.43	4.71	52.06
chr11	91006682	91012359	5678	3839	144	49.36	3.25	51.43
chr11	91058359	91061364	3006	1365	78	48.11	4.25	49.27
chr11	91119902	91122582	2681	1410	76	39.79	3.9	46.63
chr11	91147414	91150950	3537	2712	95	36.43	3.13	47.16
chr11	91309634	91311031	1398	460	38	35.32	3.95	47.39
chr11	91392382	91395358	2977	1658	77	31.92	3.09	49.8
chr11	91410345	91413683	3339	1796	86	43.45	3.57	48.02
chr11	91485029	91487501	2473	1461	64	36.12	3.31	46.97
chr11	91683470	91687316	3847	3155	102	31.21	3.22	50.57
chr11	91918114	91921311	3198	2517	90	36.97	4.08	46.96
chr11	91961514	91963480	1967	1388	48	34.4	4.04	47.76
chr11	92095056	92098027	2972	2260	82	42.73	3.32	47.4
chr11	92457421	92459488	2068	831	58	49.86	4.12	51.87
chr11	92773432	92774556	1125	260	32	40.13	4.49	46.68
chr11	93015504	93018325	2822	2351	75	47.74	3.64	49.25
chr11	93024558	93027887	3330	1711	83	35.22	3.91	47.21
chr11	93149980	93154117	4138	716	96	54.71	4.09	54.36
chr11	93546029	93548387	2359	1282	68	38.83	4.12	46.2
chr11	93802155	93804231	2077	615	61	37.1	3.21	46.95
chr11	94048092	94050199	2108	753	55	31.14	4.02	50.63
chr11	94096629	94099467	2839	797	93	58.56	4.41	54.12
chr11	94344093	94348382	4290	985	127	35.6	3.35	47.2
chr11	94622715	94627254	4540	1934	126	42.6	4.78	47.38
chr11	95085777	95090268	4492	1905	129	37.56	3.18	45.96
chr11	95157735	95162917	5183	1399	128	32.38	3.13	49.74
chr11	95338351	95340683	2333	856	75	47.05	3.6	47.51
chr11	95561130	95567906	6777	3562	224	39.87	3.14	46.7
chr11	95796290	95799229	2940	792	87	39.63	3.81	46.64
chr11	95943610	95946737	3128	985	92	31.97	3.91	49.82
chr11	96456812	96458965	2154	831	62	31.36	3.69	50.21
chr11	96489546	96493719	4174	1559	119	61.7	4.18	53.66
chr11	96493749	96496152	2404	1607	62	37.41	3.16	46.59
chr11	96517798	96520793	2996	769	83	49.16	3.68	50.78
chr11	96674142	96679515	5374	631	153	43.61	4.05	47.64
chr11	96801504	96805048	3545	2116	101	49.85	3.42	51.81
chr11	96909527	96911681	2155	1057	65	45.54	4.92	50.07
chr11	96994107	96996346	2240	1632	66	52.69	4.1	50.56
chr11	97233363	97235853	2491	1908	64	51.51	5.44	51.72

chr11	97235869	97237155	1287	262	36	34.88	4.18	47.63
chr11	97306234	97309586	3353	1530	96	42.44	3.47	47.33
chr11	97314677	97316731	2055	1089	70	46.63	4.26	47.3
chr11	97342685	97351187	8503	4514	226	68.73	3.63	57.14
chr11	97382034	97384942	2909	1350	73	37.52	4.07	45.94
chr11	97446541	97449240	2700	2043	70	32.64	4.06	49.35
chr11	97470338	97473811	3474	1991	99	38.82	3.81	46.21
chr11	97530990	97532729	1740	1214	57	54.46	4.4	54.03
chr11	97684323	97688381	4059	1454	110	35.68	3.02	47.21
chr11	97698577	97700528	1952	1129	57	35.63	3.93	47.32
chr11	97801578	97804839	3262	1195	105	48.5	4.26	49.49
chr11	97857808	97862004	4197	2733	112	33.47	3	48.6
chr11	97911629	97915235	3607	1994	116	68.42	3.83	55.3
chr11	98004114	98006807	2694	847	79	36.81	3.63	46.81
chr11	98062267	98064557	2291	736	66	31	4.28	50.54
chr11	98094329	98097882	3554	2322	96	32.9	3.42	49.34
chr11	98131893	98136864	4972	1520	148	41.96	3.05	47.08
chr11	98142542	98144668	2127	1051	61	34.65	4.07	47.68
chr11	98150886	98156538	5653	573	146	48.31	3.62	49.5
chr11	98244142	98245430	1289	939	35	32.82	5.04	49.43
chr11	98391427	98393281	1855	993	53	33.78	3.51	48.67
chr11	98613648	98615422	1775	498	47	31.67	3.4	49.84
chr11	98792080	98798585	6506	4232	180	43.9	3.53	47.82
chr11	98873249	98876743	3495	1883	80	37.34	5.07	46.82
chr11	98908835	98913430	4596	3384	127	61.55	3.54	53.01
chr11	98916896	98920774	3879	3161	99	37.44	3.32	46.36
chr11	98921262	98923418	2157	1422	58	44.3	4.6	48.22
chr11	99094119	99096047	1929	583	65	44.81	4.58	48.88
chr11	99119377	99124333	4957	1521	131	38.41	3.02	46.37
chr11	99210755	99214289	3535	1419	100	52.15	3.51	51.05
chr11	99263141	99268077	4937	2905	127	34.17	4.23	48.02
chr11	99269433	99271353	1921	473	51	31.76	3.52	49.88
chr11	99307666	99310080	2415	1561	71	34.85	4.24	47.59
chr11	99469564	99473202	3639	1581	91	33.57	3.78	48.63
chr11	99484124	99486324	2201	633	59	34.39	4.17	47.77
chr11	99520954	99525435	4482	1208	122	31.03	3.42	50.47
chr11	99580422	99582352	1931	1277	64	49.66	3.94	51.29
chr11	99635707	99639136	3430	2374	100	39.27	4.11	46.39
chr11	99775130	99779549	4420	1713	110	36.72	4.2	46.99
chr11	99809600	99812651	3052	277	85	38.28	2.93	46.27
chr11	100066131	100067884	1754	290	53	40.42	4.23	46.86
chr11	100162441	100165728	3288	2501	96	34.86	3.41	47.65
chr11	100256592	100260158	3567	1752	97	53.29	3.64	51.7
chr11	100285558	100287999	2442	1116	55	32.74	4.18	49.35
chr11	100330871	100334192	3322	610	87	38.2	3.13	46.42
chr11	100334649	100339734	5086	1580	136	43.64	4.1	47.77
chr11	100446028	100448203	2176	987	71	33.93	4.15	48.72
chr11	100815680	100816958	1279	559	42	37.15	5.32	46.92
chr11	100817727	100823357	5631	1472	160	53.82	3.5	52.26
chr11	101013220	101016274	3055	1313	79	32.17	3.51	49.93
chr11	101017944	101023234	5291	2468	146	48.84	4.03	50.53
chr11	101041225	101045461	4237	2468	105	44.33	3.88	48.31

chr11	101430784	101434423	3640	2829	84	37.51	3.27	46
chr11	101627268	101630166	2899	2071	83	36.05	3.83	46.95
chr11	101805865	101815813	9949	4249	278	30.84	2.78	50.84
chr11	102131810	102135594	3785	3123	97	31.03	3.17	50.52
chr11	102269278	102275374	6097	1109	220	32.26	3.45	50.08
chr11	103125356	103130250	4895	3353	145	32.25	2.91	50.01
chr11	103437920	103440659	2740	1258	80	30.83	3.83	50.86
chr11	103575091	103581991	6901	3375	216	78.34	4.99	58.06
chr11	103598134	103602791	4658	732	125	47.75	3.62	49.2
chr11	103604783	103608383	3601	2873	129	35.68	3.26	47.2
chr11	104054711	104061662	6952	3382	210	77.77	3.59	57.58
chr11	104633364	104639699	6336	4748	204	88.73	4.49	38.24
chr11	104748008	104756353	8346	4538	260	65.6	3.08	53.49
chr11	104756413	104759825	3413	2098	110	57.07	3.68	52.88
chr11	105004090	105005471	1382	576	40	31.49	3.91	49.92
chr11	105186791	105189255	2465	1656	73	40.92	4.39	46.48
chr11	105252125	105261395	9271	1997	273	49.21	5.14	50.9
chr11	105461975	105467155	5181	2081	149	33.59	3.88	48.73
chr11	105490442	105493731	3290	1952	92	38.73	3.92	46.21
chr11	105542960	105547049	4090	2612	107	34.58	3.67	47.72
chr11	105574297	105576214	1918	1120	53	32.5	3.36	49.42
chr11	105577008	105582327	5320	520	133	44.39	3.29	48.55
chr11	105780922	105784761	3840	827	111	35.57	3.58	47.15
chr11	105918119	105920781	2663	1654	78	30.25	3.83	51.68
chr11	106138688	106141557	2870	2197	76	37.84	3.88	46.81
chr11	106229390	106231789	2400	1562	77	52.61	4.62	50.24
chr11	106280136	106287998	7863	5369	205	62.26	4.38	54.47
chr11	106337896	106340691	2796	1015	76	37.98	3.79	46.39
chr11	106363742	106367673	3932	1020	109	36.05	3.96	46.96
chr11	106505729	106507609	1881	1144	53	33.69	4.45	48.61
chr11	106791496	106793371	1876	814	58	40.31	4.93	46.86
chr11	107055860	107059904	4045	3252	111	43.42	4.63	47.86
chr11	108244314	108248781	4468	1476	130	42.87	3.61	47.3
chr11	108746395	108750876	4482	659	136	35.83	3.62	47.04
chr11	109122311	109125797	3487	498	96	33.84	3.98	48.75
chr11	109315035	109316851	1817	1045	56	31.95	5.21	49.76
chr11	109462696	109466427	3732	794	115	72.54	5.6	58.24
chr11	109471083	109473788	2706	976	69	31.75	3.88	49.8
chr11	109524874	109527587	2714	717	74	30.02	3.28	51.48
chr11	109626369	109628483	2115	664	59	31.91	3.9	49.84
chr11	110538609	110541618	3010	2159	82	31.08	4.28	50.75
chr11	110712591	110721392	8802	5721	263	71.95	5.27	58.33
chr11	110724259	110730342	6084	4416	160	44.96	3.83	48.86
chr11	110759354	110761380	2027	1283	60	62.33	4.25	55.17
chr11	110761740	110766058	4319	1251	113	48.2	3.59	49.51
chr11	119614203	119615335	1133	567	34	76.35	11.5	54.79
chr11	120240985	120241863	879	654	20	36.4	6.16	47.15
chr12	94962	95899	938	509	216	312.7	7.94	20
chr12	419576	420399	824	562	18	30.16	4.43	51.7
chr12	782127	783518	1392	612	33	33.63	4.76	48.76
chr12	1256231	1257539	1309	591	29	40.01	6.85	46.53
chr12	1407949	1409883	1935	657	45	40.2	4.36	46.67

chr12	1762849	1763688	840	243	19	34.39	4.11	47.73
chr12	2064233	2066285	2053	1383	45	37.84	4.36	46.7
chr12	2129109	2129788	680	345	20	50.88	6.57	51.62
chr12	2534769	2535662	894	639	19	31.32	4.52	50.32
chr12	2999786	3001443	1658	1025	38	48.92	5.16	50.38
chr12	4096489	4097768	1280	555	27	38.97	5.34	46.06
chr12	4470954	4472012	1059	574	23	32.3	4.72	50.1
chr12	4914795	4915576	782	273	19	38.04	5.34	46.37
chr12	4937399	4938259	861	439	21	37.73	4.95	46.58
chr12	5396812	5397717	906	218	19	30.68	4.11	51.01
chr12	5405494	5406779	1286	612	27	38.66	4.93	46.07
chr12	6595518	6596413	896	632	19	31.21	4.52	50.51
chr12	6807823	6808775	953	345	21	36.34	6.16	47.04
chr12	6856745	6857614	870	580	19	30.58	5.12	51.22
chr12	7061088	7062439	1352	1040	38	32.24	4.65	50.06
chr12	7998408	7999265	858	605	19	33.33	5.34	48.66
chr12	8019462	8020304	843	584	19	34.21	6.57	47.87
chr12	8372797	8373863	1067	391	21	30.35	4.52	51.61
chr12	8692368	8693137	770	278	18	32.23	4.72	50.01
chr12	9114736	9116211	1476	682	32	44.28	5.06	48.25
chr12	9300112	9301247	1136	601	23	30.82	6.16	50.95
chr12	9702102	9703232	1131	554	23	31.05	5.34	50.68
chr12	9943097	9944757	1661	1069	33	31.79	4.79	49.85
chr12	10150498	10151020	523	261	15	39.16	5.71	46.24
chr12	10451290	10452236	947	400	21	36.69	6.57	46.9
chr12	10474579	10476076	1498	567	32	47.33	4.11	48.18
chr12	10732599	10733916	1318	823	28	40.93	5.75	46.5
chr12	12015591	12017818	2228	1014	56	35.01	3.81	47.56
chr12	12018602	12021536	2935	1514	76	35.22	4.11	47.2
chr12	12022052	12024188	2137	524	60	45.98	3.91	49.73
chr12	12028049	12031375	3327	812	87	30.76	3.38	50.95
chr12	12052805	12053716	912	297	20	34.47	4.11	47.74
chr12	12276316	12277885	1570	270	32	43.69	4.93	47.96
chr12	12648157	12648888	732	482	18	36.73	4.93	47.04
chr12	12838439	12839510	1072	783	23	33.95	4.52	48.66
chr12	13183020	13183854	835	261	18	30.44	4.11	51.32
chr12	14149682	14150520	839	411	22	43.57	5.75	47.96
chr12	14155740	14156924	1185	896	30	43.44	3.77	47.96
chr12	14176149	14177918	1770	1207	37	49.01	5.34	50.49
chr12	14336542	14337761	1220	530	27	41.64	5.3	47.17
chr12	14537452	14538850	1399	574	37	46.2	5.03	48.54
chr12	14922012	14924165	2154	821	47	42.39	4.65	47.1
chr12	15236182	15237414	1233	607	25	33.67	6.98	48.65
chr12	15671683	15672590	908	367	20	34.7	4.52	47.74
chr12	15713165	15714318	1154	605	24	33.71	5.34	48.61
chr12	16008686	16010214	1529	1262	33	45.73	4.52	49.89
chr12	16049584	16051250	1667	1066	33	44	4.78	48.04
chr12	16064984	16066404	1421	601	30	32.98	3.53	49.24
chr12	16243728	16244382	655	371	16	32.54	6.16	49.34
chr12	16244681	16245589	909	417	21	38.97	5.34	46.04
chr12	16473005	16475167	2163	873	45	63.76	4.93	54.63
chr12	16580594	16582595	2002	558	42	49.09	6.09	50.49

chr12	17846786	17847823	1038	377	21	31.78	5.75	49.85
chr12	18090974	18092123	1150	861	26	41.91	5.75	47.03
chr12	18287285	18288383	1099	456	24	31.55	4.89	49.93
chr12	18338662	18339556	895	460	19	31.27	4.52	50.46
chr12	18434685	18435658	974	606	22	35.16	5.75	47.17
chr12	18548214	18549072	859	408	21	32.17	4.45	49.93
chr12	18573260	18574280	1021	642	22	31.63	6.85	49.89
chr12	18610884	18611581	698	372	17	34.34	4.93	47.84
chr12	18792327	18793037	711	272	17	33.48	6.57	48.67
chr12	18886028	18887098	1071	515	21	30.16	5.34	51.62
chr12	19944399	19945294	896	574	19	31.21	5.75	50.51
chr12	20305263	20306519	1257	526	32	61.88	5.75	54.32
chr12	20349692	20350566	875	438	19	32.37	5.75	49.85
chr12	20702452	20703382	931	675	20	33.4	4.52	48.71
chr12	20772043	20772742	700	417	19	43.95	4.93	47.71
chr12	20783422	20784333	912	640	22	38.78	4.52	46.06
chr12	20914464	20915338	875	287	21	41.13	4.93	46.39
chr12	21178198	21179718	1521	1274	30	38.61	4.93	46.11
chr12	21447579	21448439	861	643	20	37.51	4.52	46.02
chr12	21510377	21511554	1178	562	27	44.51	5.34	48.67
chr12	21743801	21744921	1121	507	27	47.95	6.16	49.43
chr12	21891222	21892205	984	560	20	30.61	4.93	51.15
chr12	22113415	22114547	1133	575	25	38.73	5.75	46.22
chr12	22174178	22175829	1652	1250	37	32.36	3.42	49.84
chr12	22297023	22298697	1675	1076	34	32.46	4.3	49.45
chr12	22905856	22906834	979	407	20	30.86	4.93	50.91
chr12	22947960	22949262	1303	695	33	58.79	6.57	51.96
chr12	22982788	22983794	1007	265	25	46.23	4.93	48.66
chr12	23321498	23322380	883	283	21	40.61	6.98	46.69
chr12	23995147	23996070	924	262	20	33.79	4.93	48.76
chr12	24299116	24300677	1562	1097	33	31.04	4.11	50.56
chr12	24679662	24680532	871	265	20	36.89	5.34	46.68
chr12	24789213	24790313	1101	525	24	36.41	6.98	47.19
chr12	24823672	24824489	818	535	18	31.39	4.93	50.18
chr12	24855381	24856104	724	268	17	32.66	4.93	49.29
chr12	25347608	25348979	1372	630	33	33.36	5.29	48.7
chr12	25626627	25627353	727	354	18	37.07	5.75	46.97
chr12	26044467	26045654	1188	433	33	43.81	4.36	47.88
chr12	26178016	26178885	870	342	19	32.65	4.52	49.31
chr12	26331324	26332532	1209	472	24	30.7	6.93	50.98
chr12	26479059	26480687	1629	206	31	43.08	4.43	47.17
chr12	26505898	26506782	885	605	19	31.81	5.34	49.78
chr12	26576212	26577301	1090	287	25	30.33	4.11	51.64
chr12	26703161	26704634	1474	769	41	38.3	4.63	46.38
chr12	27141150	27142094	945	434	22	36.81	6.16	46.82
chr12	27147524	27148510	987	452	21	31.59	5.45	49.99
chr12	27421956	27422843	888	252	21	40.29	4.93	46.88
chr12	27722765	27723684	920	480	20	34.02	5.34	48.52
chr12	27789459	27790818	1360	677	26	31.55	6.57	49.98
chr12	28295238	28296456	1219	472	27	37.19	5.33	46.86
chr12	28434416	28435371	956	338	20	31.68	4.48	49.84
chr12	28800426	28801410	985	206	22	34.55	4.52	47.78

chr12	29579975	29581122	1148	518	23	30.26	5.34	51.68
chr12	30859987	30860996	1010	478	23	33.03	4.95	49.14
chr12	31673860	31674772	913	279	20	34.41	5.34	47.76
chr12	31743092	31744075	984	272	25	47.75	6.16	49.25
chr12	32547658	32548613	956	325	20	32.05	6.16	49.81
chr12	32968448	32969198	751	446	17	31.01	4.93	50.5
chr12	33030206	33030990	785	533	19	37.84	4.52	46.76
chr12	34128001	34128862	862	629	19	33.1	4.93	49.14
chr12	37910631	37911660	1030	521	24	40.38	4.93	46.78
chr12	38074081	38075034	954	606	20	32.16	4.93	49.86
chr12	38159695	38160498	804	478	18	32.2	6.57	49.96
chr12	38317409	38318405	997	718	22	33.9	4.52	48.58
chr12	38615645	38616657	1013	726	23	37.13	4.93	46.91
chr12	39304260	39305768	1509	688	32	40.91	6.09	46.41
chr12	39414739	39415782	1044	738	26	48.38	4.52	49.15
chr12	39442649	39443626	978	267	20	30.91	5.34	50.61
chr12	40427784	40428860	1077	795	24	33.29	4.95	48.85
chr12	40853632	40854306	675	391	17	32.93	5.01	49.36
chr12	41167751	41168672	922	640	20	30.05	3.81	51.47
chr12	41293105	41294706	1602	990	41	47.67	4.98	49.21
chr12	41373948	41374993	1046	377	21	31.38	5.34	50.17
chr12	41411481	41412561	1081	799	25	37.61	5.77	45.74
chr12	41839850	41840691	842	434	18	30.05	4.93	51.39
chr12	42586977	42588096	1120	286	30	38.75	4.55	46.02
chr12	42720468	42722937	2470	505	57	31.18	3.16	50.54
chr12	42740864	42742151	1288	513	26	30.27	4.95	51.64
chr12	43273886	43276011	2126	1519	50	78.01	6.57	56.92
chr12	43581606	43582527	922	634	20	33.9	4.52	48.66
chr12	43746673	43748383	1711	257	32	37.31	4.11	46.69
chr12	44242478	44243744	1267	558	25	32.1	5.34	49.72
chr12	44345948	44346753	806	283	19	36.48	7.39	47.06
chr12	44441388	44442765	1378	1088	32	54.08	5.34	52.89
chr12	44627498	44628406	909	650	21	33.58	4.09	48.66
chr12	44795366	44796028	663	391	18	41.73	6.98	47.25
chr12	44994305	44995335	1031	617	21	32.13	5.34	49.78
chr12	45282274	45283090	817	530	22	40.68	4.95	46.53
chr12	45413940	45415177	1238	558	25	33.43	5.75	48.61
chr12	45524522	45525442	921	632	20	33.96	4.52	48.64
chr12	45936922	45937599	678	389	16	31.05	4.52	50.56
chr12	46571455	46572758	1304	814	26	34.04	5.75	48.53
chr12	46700714	46701853	1140	568	24	34.4	5.75	47.75
chr12	46812868	46813816	949	366	24	34.49	5.82	47.7
chr12	47595713	47597391	1679	442	42	55.93	5.48	53.29
chr12	47601298	47602767	1470	897	35	34.82	4.98	47.49
chr12	47607783	47609209	1427	448	42	46.36	6.32	48.44
chr12	47749103	47751131	2029	1343	49	32.22	3.69	50.01
chr12	47782243	47783927	1685	1054	43	46.44	4.98	48.38
chr12	47812989	47813773	785	425	19	37.84	5.34	46.76
chr12	47896667	47897387	721	492	17	31.44	4.38	49.99
chr12	48110575	48111613	1039	449	25	39.36	6.09	46.84
chr12	48169677	48170495	819	537	19	30.28	4.42	51.68
chr12	48633516	48634358	843	558	20	38.24	6.12	46.26

chr12	48826688	48827207	520	260	18	60.19	7.39	55.36
chr12	48963621	48964272	652	289	16	32.74	5.34	49.34
chr12	49215526	49216676	1151	680	26	41.85	5.34	47.14
chr12	49424599	49425919	1321	671	30	42.4	4.89	47.09
chr12	49436852	49438680	1829	1192	46	44.36	5.66	48.46
chr12	49751582	49752520	939	697	26	43.28	4.45	47.83
chr12	49974375	49975436	1062	436	23	30.34	4.95	51.65
chr12	50511193	50512072	880	193	20	31.27	3.72	50.48
chr12	50805078	50806906	1829	1566	37	44.58	4.83	48.91
chr12	50840340	50841513	1174	560	27	31.18	4.65	50.55
chr12	50939428	50940491	1064	678	23	34.37	5.34	47.86
chr12	51152332	51153003	672	382	16	31.43	5.75	50.09
chr12	51213768	51215154	1387	808	35	32.75	4.57	49.37
chr12	51265011	51266055	1045	239	25	43.82	6.16	47.9
chr12	51518049	51518797	749	280	21	35.37	5.39	47.57
chr12	51827461	51828536	1076	272	25	41.95	5.34	47.08
chr12	51906359	51907598	1240	595	25	33.34	5.75	48.7
chr12	52144514	52145493	980	696	20	30.81	4.11	50.95
chr12	53357233	53357898	666	272	17	36.53	6.57	46.95
chr12	53372889	53373669	781	512	18	33.58	6.16	48.63
chr12	53433615	53434368	754	277	18	35.28	5.34	47.34
chr12	54097900	54099265	1366	622	31	50.52	5.34	51.44
chr12	54275679	54276895	1217	472	27	42.3	6.98	47.38
chr12	54920519	54921452	934	258	23	37.4	6.09	46.72
chr12	54923949	54925630	1682	575	39	36.95	5.29	46.93
chr12	55255593	55256410	818	477	19	34.75	6.04	47.61
chr12	55336599	55337572	974	694	22	35.16	6.16	47.17
chr12	55615596	55616743	1148	444	25	37.93	6.16	46.56
chr12	55989465	55990544	1080	592	23	32.49	5.24	49.47
chr12	56194992	56195972	981	568	23	33.42	5.21	48.7
chr12	56509321	56512097	2777	1256	75	34.17	3.42	48.01
chr12	56597509	56598485	977	700	23	30.79	4.24	51.01
chr12	56652093	56653122	1030	768	22	32.18	4.93	49.95
chr12	57088985	57089952	968	374	25	48.85	6.98	50.64
chr12	58078930	58079911	982	625	23	38.92	5.75	46.26
chr12	58170185	58171720	1536	281	32	34.25	4.24	47.89
chr12	58362834	58363692	859	259	19	33.28	4.52	48.91
chr12	58376671	58377689	1019	280	24	41.03	5.34	46.34
chr12	58668225	58669225	1001	384	25	46.62	4.93	47.22
chr12	59080312	59081738	1427	717	28	35.67	5.34	47.16
chr12	59736597	59737705	1109	417	23	32.1	4.52	49.73
chr12	59750603	59751423	821	356	18	31.22	5.34	50.51
chr12	60167186	60168011	826	277	20	37.45	4.72	46.33
chr12	60200574	60202455	1882	511	40	44.84	7.36	48.84
chr12	60418881	60420590	1710	1164	37	45.43	4.95	49.74
chr12	60582062	60582899	838	553	20	38.87	6.97	46.24
chr12	60594699	60595421	723	458	17	32.72	6.16	49.39
chr12	60647789	60649001	1213	552	24	30.93	5.75	50.58
chr12	60704191	60705314	1124	482	25	39.22	4.93	46.41
chr12	60866047	60867175	1129	414	27	47.45	6.16	48.6
chr12	61475333	61476482	1150	379	25	37.82	8.22	46.7
chr12	62418206	62419095	890	625	19	31.54	4.52	49.9

chr12	62431578	62432559	982	468	24	38.65	5.71	46.13
chr12	62516725	62517678	954	413	20	32.16	6.16	49.86
chr12	62636917	62638413	1497	1074	37	47.61	6.49	48.94
chr12	62719314	62720750	1437	650	30	42.65	7.39	47.34
chr12	62897854	62898895	1042	564	22	31.58	5.75	49.97
chr12	62903741	62904582	842	576	21	38.97	6.47	46.11
chr12	63199309	63200267	959	566	21	36	5.34	47.07
chr12	63207354	63208189	836	557	18	30.38	4.52	51.65
chr12	63455889	63456691	803	288	19	36.67	6.16	47.02
chr12	63960638	63962877	2240	1990	50	71.56	4.93	53.85
chr12	64040263	64041550	1288	606	26	34.78	6.16	47.61
chr12	64205947	64207034	1088	461	23	33.14	5.34	49.16
chr12	64289179	64290426	1248	661	25	32.97	5.75	49.29
chr12	64301457	64302027	571	285	15	32.66	6.16	49.32
chr12	64446441	64447163	723	370	18	37.34	6.16	46.8
chr12	64985651	64986798	1148	598	23	30.26	5.34	51.68
chr12	65122659	65124100	1442	944	37	66.04	6.04	54.82
chr12	65569864	65571246	1383	959	30	35.47	4.64	47.42
chr12	66098649	66099560	912	585	20	34.47	4.11	47.74
chr12	66523991	66525370	1380	796	28	32.26	5.27	50.05
chr12	66534769	66536235	1467	567	33	35.33	4.11	47.46
chr12	66754041	66755267	1227	706	24	30.31	5.34	51.56
chr12	67087289	67088143	855	600	20	37.88	5.34	46.61
chr12	67385098	67385934	837	282	18	30.33	4.52	51.59
chr12	67705363	67706518	1156	868	28	31.49	3.42	49.91
chr12	67748390	67749986	1597	1019	35	35.73	4.11	47.24
chr12	67816031	67817047	1017	322	23	36.9	6.98	46.75
chr12	68200247	68201082	836	561	21	39.38	6.09	46.9
chr12	68390268	68391171	904	450	19	30.79	5.75	50.91
chr12	68686175	68687090	916	502	21	34.34	4.19	47.85
chr12	69210043	69211641	1599	390	35	44.59	4.23	48.91
chr12	69632975	69633800	826	561	22	34.24	5.48	47.89
chr12	69655366	69656665	1300	538	31	46.71	4.84	47.52
chr12	69672580	69674590	2011	1322	41	40.49	5.05	46.95
chr12	69718273	69720276	2004	1262	42	52.23	5.51	51.22
chr12	69722981	69724962	1982	686	49	34.27	5.27	47.92
chr12	69875927	69876891	965	269	21	35.66	4.93	47.29
chr12	70610329	70611264	936	358	20	33.13	6.16	49.14
chr12	70821999	70823212	1214	642	28	37.69	4.69	46.54
chr12	71270990	71271893	904	247	19	30.79	4.11	50.91
chr12	71299179	71300182	1004	560	21	33.53	5.34	48.64
chr12	71326877	71328274	1398	816	31	48.7	6.98	50.42
chr12	71381929	71383013	1085	337	25	41.43	6.16	47.1
chr12	72026131	72027017	887	260	28	43.12	5.71	47.32
chr12	72182663	72184022	1360	1014	31	38.69	3.49	46.21
chr12	72315501	72316807	1307	503	34	33.85	5.71	48.76
chr12	72678882	72679821	940	588	20	32.91	5.75	49.24
chr12	72718563	72720074	1512	563	31	42.74	4.11	47.55
chr12	72789631	72790665	1035	433	21	31.93	6.16	49.77
chr12	73002685	73003959	1275	608	30	51.64	6.57	51.37
chr12	73343991	73344926	936	514	20	33.13	4.93	49.14
chr12	73381039	73381924	886	615	19	31.76	4.52	49.79



chr12	73854770	73855559	790	410	18	33.03	4.93	49.16
chr12	74053179	74054076	898	231	19	31.11	4.52	50.64
chr12	74496161	74497831	1671	919	40	66.66	5.75	55.63
chr12	75060789	75061836	1048	544	24	36.81	6.69	46.79
chr12	75120692	75121558	867	414	23	46.39	7.39	48.44
chr12	75170853	75172086	1234	687	28	33.98	4.84	48.56
chr12	75313902	75314772	871	599	22	40.29	6.45	46.92
chr12	75412622	75413850	1229	651	24	30.22	6.98	51.74
chr12	75530929	75531824	896	650	22	39.78	5.34	46.6
chr12	76043074	76044597	1524	750	35	32.24	4.36	50.06
chr12	76056956	76057886	931	277	24	46.68	5.75	47.49
chr12	76157514	76158518	1005	535	25	44.34	5.97	48.37
chr12	76261792	76262694	903	385	21	39.34	4.93	46.61
chr12	76671198	76671791	594	291	15	31.65	5.3	49.92
chr12	76841357	76842455	1099	382	25	35.94	4.95	47.07
chr12	77103339	77104424	1086	527	25	41.37	6.16	46.98
chr12	77236357	77238957	2601	1165	54	45.08	5.37	48.98
chr12	78077018	78078614	1597	825	37	34.88	4.36	47.62
chr12	78109770	78110791	1022	732	21	32.59	4.93	49.35
chr12	78468818	78470074	1257	472	27	40.15	6.57	46.72
chr12	78491846	78492869	1024	561	21	32.49	5.34	49.45
chr12	79240466	79242181	1716	1093	38	55.68	6.57	53.88
chr12	79459961	79460848	888	269	19	31.65	4.52	49.86
chr12	79542408	79543161	754	463	19	39.95	4.93	46.76
chr12	79684701	79685760	1060	426	23	30.44	4.57	51.3
chr12	79838709	79839545	837	615	18	30.33	4.93	51.59
chr12	79930373	79931476	1104	601	24	31.91	4.57	49.83
chr12	79970795	79971791	997	538	25	46.88	6.57	47.56
chr12	80649986	80650805	820	530	18	31.28	6.16	50.36
chr12	80697743	80698540	798	220	18	32.55	4.11	49.31
chr12	80763905	80765108	1204	615	26	34.91	6.93	47.62
chr12	81042644	81043683	1040	432	24	39.79	5.75	46.64
chr12	81592239	81593043	805	514	18	32.14	5.34	49.83
chr12	81762601	81763717	1117	543	25	39.61	6.98	46.63
chr12	81791702	81792488	787	465	20	42.43	5.75	47.3
chr12	81814664	81815690	1027	251	23	36.35	4.93	47.09
chr12	81879052	81880274	1223	608	31	59.53	4.93	55.03
chr12	82187504	82188478	975	239	20	31.07	4.52	50.75
chr12	82479438	82481031	1594	1303	32	39.36	5.12	46.78
chr12	82658179	82659321	1143	640	25	38.19	7.39	46.33
chr12	82943467	82944001	535	267	15	37.66	6.16	46.06
chr12	82988910	82990288	1379	1129	33	44.21	4.36	48.17
chr12	83030582	83031893	1312	554	29	39.86	5.71	46.63
chr12	83153498	83154405	908	537	19	30.22	5.3	51.74
chr12	83437890	83438867	978	702	22	34.93	4.52	47.58
chr12	84214934	84215548	615	284	17	40.37	6.57	46.78
chr12	84413436	84414275	840	479	18	30.16	6.16	51.72
chr12	84536814	84537544	731	447	17	32.22	5.75	49.98
chr12	84870636	84871652	1017	351	24	41.15	7.39	46.41
chr12	84929710	84931086	1377	723	29	41.81	5.75	46.91
chr12	85554090	85555103	1014	646	21	33	6.57	49.18
chr12	85864884	85865811	928	701	20	33.57	5.75	48.57

chr12	85905662	85906664	1003	466	22	33.58	5.34	48.66
chr12	86187066	86187868	803	519	19	33.38	6.16	48.71
chr12	86508518	86509367	850	587	20	38.2	5.34	46.37
chr12	86561892	86563265	1374	630	26	30.95	5.34	50.53
chr12	87618653	87620637	1985	626	45	65.28	5.75	54.29
chr12	87728226	87729247	1022	593	21	32.59	4.52	49.35
chr12	87905064	87905921	858	540	19	33.33	4.52	48.66
chr12	88239059	88240109	1051	394	21	31.13	5.34	50.63
chr12	88323095	88324571	1477	277	31	33	4.19	49.21
chr12	88376441	88377381	941	283	21	37.04	4.93	46.99
chr12	88934704	88935435	732	282	17	32.16	5.34	49.88
chr12	89048203	89048952	750	431	22	46.34	6.16	48.4
chr12	89138010	89139070	1061	491	23	34.52	5.34	47.75
chr12	89215213	89216651	1439	931	31	40.76	4.57	46.56
chr12	89382113	89383911	1799	1080	37	46.97	6.12	47.61
chr12	89496177	89496874	698	268	18	34.77	6.02	47.58
chr12	89850144	89850817	674	423	17	35.06	4.03	47.43
chr12	90397482	90398384	903	622	19	30.84	4.52	50.85
chr12	90729979	90730843	865	272	19	32.93	4.93	49.39
chr12	91042320	91043088	769	361	22	48.77	6.57	50.69
chr12	91380967	91381973	1007	377	28	60.67	8.63	54.81
chr12	91430418	91431369	952	289	26	47.22	4.79	47.9
chr12	91477952	91479090	1139	547	23	30.68	6.16	51
chr12	91601901	91602743	843	565	20	38.64	6.16	46.11
chr12	92329372	92330256	885	425	21	40.48	4.93	46.93
chr12	92355839	92356750	912	448	20	30.58	4.95	51.23
chr12	92457940	92459027	1088	450	23	30.85	4.72	50.9
chr12	92552282	92553399	1118	583	31	44.59	4.36	48.94
chr12	93223634	93224577	944	565	21	36.86	5.75	46.73
chr12	93300938	93302095	1158	734	29	41.21	4.11	46.76
chr12	93381161	93381953	793	506	22	31.37	5.29	50.25
chr12	94037863	94038830	968	280	21	35.49	4.93	47.45
chr12	94575752	94576439	688	272	18	39.83	5.75	46.63
chr12	94770630	94772337	1708	491	37	42.8	5.16	47.42
chr12	94797937	94799651	1715	1432	35	31.53	3.42	49.94
chr12	95056422	95057571	1150	561	26	41.91	5.34	47.03
chr12	95704373	95705898	1526	1092	36	35.2	4.05	47.15
chr12	95976151	95977173	1023	627	22	32.54	5.75	49.37
chr12	96094566	96095443	878	610	19	32.2	4.11	49.92
chr12	96140520	96142112	1593	1114	32	42.58	4.93	47.16
chr12	96299748	96300511	764	231	23	54.42	4.93	54.01
chr12	96406569	96407482	914	349	20	34.35	5.34	47.87
chr12	97729669	97730511	843	401	19	34.21	5.34	47.87
chr12	98569871	98570898	1028	408	21	32.28	4.52	50.03
chr12	98752346	98753037	692	331	16	30.18	5.34	51.67
chr12	98760393	98761446	1054	517	27	46.91	5.33	47.72
chr12	99107878	99109111	1234	625	27	36.41	4.95	47.17
chr12	99329985	99331021	1037	479	24	35.45	4.57	47.4
chr12	99431401	99432332	932	291	21	32.26	4.47	50.06
chr12	99440814	99441754	941	253	24	34.98	6.16	47.6
chr12	99571566	99572789	1224	569	24	30.44	6.16	51.32
chr12	99681915	99682711	797	325	19	33.2	5.33	49.13

chr12	99824170	99825311	1142	435	23	30.14	4.89	51.63
chr12	99845307	99846533	1227	697	29	35.28	4.65	47.41
chr12	99933846	99935397	1552	732	36	53.86	5.58	52.55
chr12	100129919	100130943	1025	281	26	37.65	5.14	45.96
chr12	100396257	100397429	1173	593	25	36.62	5.75	46.95
chr12	100420396	100420977	582	291	15	32.66	6.16	49.32
chr12	100860599	100861804	1206	728	29	38.41	4.79	46.36
chr12	100869070	100870003	934	282	21	37.45	5.34	46.33
chr12	101659126	101660032	907	285	22	38.67	5.3	46.12
chr12	101672244	101673049	806	409	20	30.5	4.03	51.28
chr12	101981887	101982715	829	578	18	30.77	5.34	50.95
chr12	102104795	102105636	842	464	18	30.05	4.93	51.39
chr12	102119666	102120590	925	477	20	33.74	5.34	48.66
chr12	102152721	102153773	1053	496	26	47.79	8.22	49.39
chr12	102261913	102262904	992	404	23	38.33	5.34	46.45
chr12	102453690	102454916	1227	763	31	37.8	4.36	46.65
chr12	102533343	102534210	868	288	19	32.76	5.34	49.36
chr12	102769369	102770401	1033	667	22	32.03	4.93	49.77
chr12	103211437	103212688	1252	519	29	48.69	6.16	50.31
chr12	103333580	103334777	1198	577	26	39.28	7.39	46.48
chr12	103385053	103386077	1025	602	24	40.67	5.75	46.49
chr12	103586604	103587487	884	331	20	36.1	4.52	47.01
chr12	104497853	104498856	1004	714	25	30.62	5.07	51.18
chr12	104585525	104586332	808	578	18	31.97	4.11	49.79
chr12	104670404	104671014	611	281	15	30.8	5.75	51.01
chr12	104831205	104832257	1053	266	22	31.03	4.52	50.5
chr12	104841323	104842069	747	535	17	31.25	3.7	50.49
chr12	105486852	105487703	852	343	19	33.68	4.52	48.55
chr12	105588596	105589539	944	658	23	41.23	4.93	46.75
chr12	106005382	106006367	986	291	20	30.51	4.52	51.28
chr12	106308082	106309248	1167	575	24	33.08	6.16	49.14
chr12	106695879	106697185	1307	589	28	30.15	6.2	51.66
chr12	107160217	107160894	678	291	16	31.05	5.34	50.56
chr12	107303755	107305159	1405	747	31	48.31	6.98	49.55
chr12	107328013	107328887	875	282	22	41.13	4.93	46.39
chr12	107425632	107426506	875	607	23	45.82	5.34	49.92
chr12	109781819	109783281	1463	709	33	43.24	5.71	47.67
chr12	109824146	109825532	1387	676	32	43.99	6.19	48.01
chr12	109956280	109957107	828	283	18	30.83	4.11	50.88
chr12	110357594	110358564	971	577	20	31.27	5.75	50.48
chr12	110761437	110762627	1191	641	29	42.1	5.35	46.92
chr12	110824623	110825711	1089	503	76	323.72	25.33	22.22
chr12	110867348	110868553	1206	529	26	30.95	4.33	50.52
chr12	110938148	110941359	3212	1782	74	49.43	3.42	51.79
chr12	110999550	111000842	1293	705	33	38.86	6.34	46.23
chr12	111400451	111401253	803	287	18	32.26	4.52	50.09
chr12	112005144	112006091	948	709	23	40.98	4.93	46.23
chr12	112477629	112478959	1331	758	27	36.46	4.93	47.14
chr12	112492915	112493864	950	274	23	32.85	4.28	49.33
chr12	112505740	112506704	965	688	20	31.58	5.34	50
chr12	112567590	112568961	1372	901	36	36.65	5.71	47.01
chr12	112664287	112665446	1160	316	26	39.2	4.37	46.31

chr12	112717418	112719076	1659	723	40	45.26	5.22	49.25
chr12	112799968	112800666	699	265	18	39.03	5.75	46.3
chr12	112846791	112847721	931	486	24	30.25	4.36	51.7
chr12	112947491	112948511	1021	514	21	31.63	4.83	49.89
chr12	113274785	113275539	755	494	17	30.77	4.93	50.95
chr12	113412532	113413434	903	224	23	33.94	3.81	48.67
chr12	113551316	113552230	915	278	20	30.42	4.57	51.33
chr12	113586983	113587741	759	284	20	44.48	6.57	48.45
chr12	114660922	114661736	815	573	19	35.92	6.16	47.05
chr12	115022464	115023292	829	540	19	35.05	4.11	47.49
chr12	117164324	117165354	1031	530	25	44.69	7.39	48.77
chr12	117339126	117340035	910	551	24	36.92	6.51	46.79
chr12	118310306	118311225	920	270	21	38.29	4.52	46.31
chr12	118728133	118729139	1007	650	21	33.37	5.34	48.68
chr12	118847406	118848615	1210	650	25	34.77	5.34	47.62
chr12	119387653	119388744	1092	741	24	36.89	5.34	46.71
chr12	120047585	120048800	1216	553	24	30.8	6.16	51.01
chr12	120468662	120470234	1573	1178	34	41.37	4.95	46.96
chr12	120493729	120494661	933	701	22	33.36	4.57	48.69
chr12	120636548	120638589	2042	627	55	55.79	5.22	53.47
chr12	120910254	120911222	969	542	21	33.15	4.33	49.17
chr12	120972271	120973552	1282	864	30	35.83	3.99	47.03
chr12	121245933	121247070	1138	560	24	34.5	6.16	47.67
chr12	121829973	121830816	844	574	19	34.15	4.52	48
chr12	122016923	122017741	819	283	19	30.28	5.52	51.68
chr12	122332460	122333740	1281	623	27	38.92	7.39	46.29
chr12	122897090	122898174	1085	759	24	37.27	4.52	46.59
chr12	122965111	122966032	922	503	20	32.91	6.45	49.31
chr12	123003954	123006150	2197	842	44	32.17	4.99	49.92
chr12	123130567	123131758	1192	680	26	39.6	6.16	46.54
chr12	123364193	123365215	1023	605	21	32.54	6.57	49.37
chr12	125445700	125446767	1068	573	25	37.67	4.95	46.36
chr12	125545620	125547025	1406	855	28	36.63	6.57	46.92
chr12	126062607	126063863	1257	447	28	38.97	5.33	46.13
chr12	126507005	126508586	1582	1045	30	35.91	4.52	47.03
chr12	126851034	126851668	635	282	17	38.81	6.16	46.12
chr12	128914337	128914999	663	372	16	32.01	5.34	49.76
chr12	132598577	132599289	713	407	19	33.5	4.79	48.66
chr12	132628170	132629725	1556	488	44	49.16	4.57	50.72
chr12	132959462	132961221	1760	584	37	43.03	5.33	47.5
chr12	133666059	133667166	1108	686	23	32.15	6.16	49.87
chr13	19823603	19824487	885	452	19	31.81	4.93	49.78
chr13	20656174	20657568	1395	1006	34	44.07	4.19	48.05
chr13	20959301	20960840	1540	1013	34	49.09	6.57	50.55
chr13	20974878	20975632	755	248	18	35.21	4.93	47.17
chr13	21154550	21155608	1059	371	22	30.74	5.34	50.97
chr13	21221727	21223125	1399	528	36	61.14	4.67	54.58
chr13	21271733	21272641	909	275	22	38.97	7.39	46.04
chr13	21501832	21502831	1000	276	21	33.74	6.98	48.62
chr13	21548812	21549749	938	402	21	33.08	5.33	49.17
chr13	21723524	21725025	1502	873	37	47.49	5.48	48.55
chr13	21847276	21848037	762	369	17	30.36	4.52	51.65

chr13	21856899	21857728	830	561	18	30.71	5.34	50.99
chr13	22024600	22025211	612	335	15	30.73	5.34	51.05
chr13	22302269	22303149	881	281	22	30.85	5.14	50.92
chr13	22564401	22565188	788	502	18	33.15	3.7	49.12
chr13	24012230	24013429	1200	632	24	31.52	5.34	49.89
chr13	24239596	24240574	979	281	21	34.88	4.93	47.64
chr13	24247547	24248247	701	285	17	34.14	5.75	48.03
chr13	25037082	25039754	2673	616	58	47.83	4.58	49.29
chr13	25654595	25655496	902	643	21	39.4	4.93	46.96
chr13	25670383	25671789	1407	666	37	37.92	6.85	46.57
chr13	25990295	25991254	960	385	21	35.94	6.16	47.02
chr13	26512260	26513163	904	262	20	34.93	5.34	47.57
chr13	27089626	27090317	692	364	16	30.18	4.93	51.67
chr13	27839422	27840349	928	604	20	33.57	4.52	48.57
chr13	27844445	27845742	1298	732	34	63.75	5.75	54.37
chr13	27949076	27950905	1830	1304	34	35.28	5.3	47.38
chr13	28068032	28069006	975	675	25	48.36	9.04	49.1
chr13	28164052	28164677	626	376	16	34.53	4.52	47.73
chr13	28418165	28419250	1086	579	23	33.24	4.52	49.01
chr13	28632857	28633740	884	622	20	36.1	4.93	47.01
chr13	29092627	29094198	1572	934	33	33.37	5.35	48.67
chr13	29209202	29209871	670	269	17	36.25	5.75	46.95
chr13	29435949	29436928	980	546	21	34.82	6.16	47.49
chr13	30378105	30379074	970	613	26	49.72	5.84	51.9
chr13	30687050	30687617	568	284	16	37.66	6.57	46.06
chr13	30788175	30789230	1056	276	21	30.89	4.52	50.76
chr13	31018552	31022510	3959	3310	97	71.72	4.89	55.45
chr13	31034017	31035620	1604	757	43	31.85	3.75	49.71
chr13	31145723	31147099	1377	594	38	31.96	3.23	49.78
chr13	31318134	31318735	602	318	16	31.46	4.79	50.02
chr13	32670194	32671026	833	485	18	30.55	4.11	51.23
chr13	32892988	32894471	1484	815	39	45.16	4.85	48.9
chr13	32906227	32907601	1375	571	35	39.8	4.67	46.66
chr13	33013780	33014476	697	285	17	34.06	4.48	48.52
chr13	33239781	33241282	1502	300	38	61.03	5.71	54.55
chr13	33363431	33364400	970	297	21	35.38	6.16	47.52
chr13	33568935	33569952	1018	641	21	32.8	5.34	49.43
chr13	33686221	33687345	1125	521	26	33.2	4.89	49.14
chr13	33927203	33928026	824	432	18	31.05	5.34	50.62
chr13	34719736	34720711	976	257	23	39.27	6.98	46.45
chr13	34828117	34829065	949	689	21	36.57	5.34	46.89
chr13	35234355	35235349	995	551	20	30.06	4.93	51.48
chr13	35412343	35412937	595	289	15	31.89	5.75	49.84
chr13	35464241	35465181	941	655	21	32.91	4.95	49.3
chr13	35671834	35672511	678	289	17	35.69	5.75	47.24
chr13	35741419	35743029	1611	1320	36	39.49	4.16	46.98
chr13	35838520	35839737	1218	441	27	42.25	5.34	47.03
chr13	36039656	36041345	1690	585	30	34.81	4.93	47.57
chr13	36488742	36489481	740	242	18	36.19	4.52	46.9
chr13	36643466	36644341	876	636	19	32.31	4.52	50.09
chr13	37032811	37033728	918	419	19	30.05	5.34	51.47
chr13	37082902	37084071	1170	563	26	40.79	4.93	46.34

chr13	37116310	37116931	622	251	15	30.07	4.93	51.52
chr13	37268941	37270512	1572	1290	34	47.42	5.34	48.43
chr13	37299378	37300233	856	676	20	37.82	4.11	46.66
chr13	37312163	37312901	739	288	19	41.02	5.75	46.25
chr13	37741004	37741572	569	284	17	39.16	6.47	46.24
chr13	37861257	37862228	972	363	22	35.27	6.57	47.3
chr13	38242067	38242890	824	536	18	31.05	4.93	50.62
chr13	38922578	38924029	1452	265	32	31.4	3.2	50.2
chr13	39099830	39100844	1015	379	22	32.95	4.93	49.29
chr13	39794499	39795597	1099	453	23	32.59	4.52	49.39
chr13	39980994	39982386	1393	757	30	44.92	6.57	48.83
chr13	40133921	40134778	858	549	20	33.67	4.19	48.66
chr13	40634564	40635505	942	564	22	35.92	5.24	47.06
chr13	41038282	41039216	935	305	20	33.18	4.11	49.11
chr13	41178138	41178949	812	290	18	31.74	6.16	49.76
chr13	41326414	41327502	1089	588	27	35.78	4.65	47.14
chr13	41743082	41744312	1231	569	26	37.57	7.39	45.97
chr13	41760718	41761677	960	670	21	31.29	5.27	50.33
chr13	41767615	41769679	2065	1523	48	35.11	4	47.39
chr13	41913374	41914437	1064	286	34	61.77	7.57	53.88
chr13	42147801	42148772	972	379	22	35.27	6.57	47.3
chr13	42169240	42171275	2036	671	46	66.53	6.98	55.19
chr13	42194712	42196085	1374	746	36	51.33	7.19	51.47
chr13	42459045	42459904	860	589	21	37.79	4.57	46.72
chr13	42514769	42515946	1178	637	26	40.35	6.98	46.86
chr13	42592518	42594328	1811	421	34	36.57	4.11	46.86
chr13	42618301	42619866	1566	777	45	51.19	5.66	51.73
chr13	42972434	42974396	1963	1239	44	34.52	4.89	47.73
chr13	43077923	43079006	1084	504	25	41.49	4.93	47.06
chr13	43238755	43239563	809	329	18	31.91	3.7	49.82
chr13	43513984	43515557	1574	522	37	35.98	4.98	47.08
chr13	44077960	44078795	836	554	18	30.38	3.7	51.65
chr13	44283475	44284363	889	607	20	35.81	5.34	47.08
chr13	44750439	44750982	544	272	15	37.66	6.16	46.06
chr13	45530750	45532085	1336	760	28	34.99	4.95	47.59
chr13	45688237	45688755	519	259	15	35.59	5.3	47.2
chr13	45962189	45963199	1011	739	24	41.51	4.93	47.24
chr13	46288843	46289567	725	329	18	37.2	6.57	46.93
chr13	46414345	46414906	562	281	16	42.93	6.57	47.38
chr13	46472989	46474673	1685	1013	37	53.34	6.98	51.71
chr13	46553802	46556021	2220	787	54	34.03	4.48	48.59
chr13	46602134	46603168	1035	554	28	31.92	5.61	49.8
chr13	46819795	46821154	1360	681	29	37.41	8.37	46.64
chr13	46824461	46825918	1458	1225	33	49.48	4.52	51.56
chr13	46895297	46896462	1166	488	24	32.71	4.89	49.41
chr13	47196227	47197289	1063	540	22	30.55	5.75	51.18
chr13	47270453	47271336	884	605	21	40.55	5.75	46.93
chr13	47317151	47318043	893	246	19	31.38	4.11	50.16
chr13	47375694	47377508	1815	1275	40	58.38	6.16	53.91
chr13	48178781	48179520	740	320	18	36.19	5.34	46.9
chr13	48535161	48536856	1696	411	40	32.39	4.28	49.75
chr13	48664045	48665394	1350	698	34	31.04	3.96	50.58

chr13	48700572	48702057	1486	479	30	34.98	3.42	47.61
chr13	48705128	48706183	1056	606	24	35.7	6.23	47.21
chr13	48837256	48838231	976	420	20	31.01	6.57	50.49
chr13	49096857	49099476	2620	568	56	57.78	5.16	53.24
chr13	49221285	49222352	1068	565	21	30.31	5.75	51.54
chr13	49358752	49359613	862	193	19	32.74	4.89	49.34
chr13	49527777	49529040	1264	791	29	42.46	4.57	47.37
chr13	49834761	49836247	1487	1216	30	36.45	4.28	47.15
chr13	50329580	50330519	940	624	20	31.93	5.24	49.73
chr13	50482356	50483236	881	595	19	32.03	5.75	49.73
chr13	50596121	50597281	1161	524	27	32.44	4.36	49.53
chr13	50895891	50896732	842	436	18	30.05	5.34	51.39
chr13	51313181	51314130	950	363	22	32.41	4.95	49.65
chr13	51501522	51502796	1275	528	26	35.4	4.93	47.57
chr13	51863815	51864703	889	268	27	65.18	7.39	53.98
chr13	52010784	52012338	1555	1049	35	34.12	3.91	48.08
chr13	52036097	52036783	687	468	17	35.07	4.93	47.35
chr13	52322515	52324156	1642	429	36	34.64	4.32	47.64
chr13	52363912	52364811	900	609	21	39.53	6.98	46.86
chr13	52567147	52567970	824	420	18	31.05	5.34	50.62
chr13	52698313	52699534	1222	627	29	42.53	6.63	47.17
chr13	52765741	52767457	1717	1032	38	31.73	4.94	49.74
chr13	52812807	52813879	1073	528	24	32.88	6.4	49.34
chr13	52832738	52833905	1168	630	24	33.03	5.34	49.12
chr13	53310739	53311727	989	520	20	30.36	5.34	51.62
chr13	53644296	53645138	843	565	19	34.21	4.52	47.87
chr13	53976263	53977365	1103	525	26	33.17	5.48	49.16
chr13	54651159	54652032	874	281	19	32.42	6.57	49.55
chr13	54964036	54964840	805	551	18	32.14	5.34	49.83
chr13	55789907	55790781	875	591	21	36.83	4.57	46.88
chr13	55841221	55842280	1060	600	22	30.69	4.93	51.01
chr13	55967355	55968018	664	349	16	31.95	5.34	49.78
chr13	56302885	56303764	880	614	19	32.09	5.34	49.72
chr13	56701957	56702852	896	638	20	31.47	4.57	50.01
chr13	56918792	56919645	854	564	19	33.57	5.34	48.6
chr13	58213951	58214850	900	553	19	31	4.52	50.47
chr13	58408960	58410805	1846	608	37	39.18	4.19	46.23
chr13	58541402	58542436	1035	258	24	35.56	4.19	47.15
chr13	58790512	58791795	1284	813	28	37.56	5.33	45.96
chr13	58932045	58933099	1055	377	24	38.93	6.16	46.25
chr13	58994150	58995317	1168	638	24	33.03	4.93	49.12
chr13	59265738	59267301	1564	384	30	36.69	4.52	46.91
chr13	59856040	59857160	1121	772	24	35.37	5.75	47.53
chr13	60655253	60657343	2091	455	52	37.87	4.25	46.65
chr13	60676452	60677584	1133	569	25	38.27	4.89	46.29
chr13	60680553	60682129	1577	248	31	30.41	4.11	51.39
chr13	60776462	60777224	763	517	17	30.3	5.34	51.54
chr13	61138765	61139942	1178	503	29	53.3	6.57	51.79
chr13	62167665	62168550	886	633	19	31.76	4.93	49.79
chr13	62376919	62377876	958	685	26	49.03	6.47	50.55
chr13	62390211	62391326	1116	431	23	31.77	6.16	49.85
chr13	62409709	62410759	1051	397	23	35.05	4.93	47.54

chr13	62627025	62627975	951	633	25	32.66	5.6	49.31
chr13	63002562	63003916	1355	598	29	37.66	4.95	46.01
chr13	63209106	63210236	1131	519	24	30.58	5.33	51.19
chr13	63296862	63298493	1632	579	33	40.77	4.93	46.49
chr13	63318754	63319822	1069	645	25	42.37	6.57	47.01
chr13	63420744	63421480	737	518	20	31.2	3.74	50.54
chr13	63512241	63513199	959	356	20	31.52	4.89	49.88
chr13	63579272	63580215	944	289	20	32.69	4.93	49.42
chr13	63609186	63611096	1911	797	66	31.7	4.97	49.78
chr13	63620576	63624001	3426	2887	138	89.89	4.87	39.39
chr13	64261515	64263107	1593	565	33	42.58	4.11	47.16
chr13	64729756	64731555	1800	563	41	63.29	5.34	54.72
chr13	64756370	64757327	958	416	20	31.95	5.34	49.8
chr13	64815696	64816679	984	758	20	30.61	4.11	51.15
chr13	64929896	64930831	936	614	24	41.55	6.85	47.19
chr13	65211536	65212746	1211	475	24	31.02	6.57	50.48
chr13	65384433	65385241	809	546	22	45.72	5.75	49.92
chr13	65599657	65601175	1519	270	31	33.91	4.37	48.69
chr13	65652198	65653101	904	248	19	30.79	4.11	50.91
chr13	65997299	65998399	1101	424	24	32.06	4.57	49.83
chr13	66122022	66123386	1365	796	29	42.43	4.93	47.26
chr13	66215655	66216569	915	266	21	38.6	4.52	46.1
chr13	66281463	66282488	1026	531	21	32.38	5.75	49.71
chr13	66474335	66475054	720	283	18	34.89	4.67	47.59
chr13	66673316	66674174	859	498	19	33.28	4.11	48.91
chr13	67254344	67256124	1781	562	35	37.97	5.51	46.36
chr13	67531966	67532774	809	523	20	40.9	4.93	46.35
chr13	67659810	67660752	943	500	20	30.04	5.84	51.45
chr13	67702779	67703849	1071	473	21	30.16	4.93	51.62
chr13	67777802	67778729	928	280	21	37.81	5.34	46.63
chr13	67900847	67902232	1386	1104	30	45.29	4.93	49.39
chr13	68013991	68015410	1420	1162	30	36.56	3.72	46.88
chr13	68096862	68097928	1067	551	23	34.21	6.16	47.92
chr13	68106261	68107507	1247	484	30	53.37	7.8	51.46
chr13	68157657	68158773	1117	663	26	43.82	6.98	47.87
chr13	68392919	68394021	1103	522	25	33.79	4.42	48.81
chr13	68490906	68491645	740	238	17	31.67	3.7	49.82
chr13	68531904	68532791	888	632	20	35.86	4.93	47.02
chr13	68861663	68863275	1613	262	36	44.84	3.72	48.77
chr13	69065066	69066793	1728	1348	37	37.69	4.19	46.42
chr13	69094775	69095401	627	291	18	44.65	6.16	48.87
chr13	69246235	69247163	929	688	22	37.75	5.75	46.67
chr13	69333416	69334505	1090	529	24	32	4.52	49.77
chr13	69344884	69345910	1027	513	23	32.12	4.57	49.74
chr13	69346515	69347406	892	601	20	35.63	6.57	47.33
chr13	69506327	69507409	1083	797	24	32.36	4.52	49.85
chr13	69614445	69615377	933	269	22	37.51	6.57	46.02
chr13	69623570	69624609	1040	473	24	35.28	6.47	47.4
chr13	69627724	69628746	1023	614	25	45.2	6.16	49.11
chr13	69628830	69629734	905	281	21	39.22	5.75	46.37
chr13	69637878	69638977	1100	306	26	39.84	5.71	46.62
chr13	69640013	69641860	1848	820	48	54.42	4.67	54



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chr13	69996119	69996943	825	290	18	30.99	4.52	50.47
chr13	70550012	70550986	975	265	20	31.07	4.11	50.75
chr13	70673508	70675089	1582	546	30	39.44	4.52	47.06
chr13	70821982	70822608	627	308	16	34.46	5.34	47.79
chr13	70943023	70944053	1031	379	21	32.13	4.93	49.78
chr13	70983829	70984696	868	639	19	32.76	4.11	49.36
chr13	71709942	71711279	1338	751	30	47.93	6.57	49.38
chr13	71716447	71717015	569	284	16	37.66	6.57	46.06
chr13	71754894	71755917	1024	506	22	32.49	4.93	49.45
chr13	72300570	72301539	970	590	21	31.32	4.19	50.25
chr13	72962011	72962845	835	482	18	30.44	4.93	51.32
chr13	73325853	73327756	1904	588	40	45.74	4.52	49.85
chr13	73329710	73331233	1524	380	35	41.57	4.24	47.25
chr13	73482515	73483905	1391	277	30	35.78	3.24	47.13
chr13	73570309	73572506	2198	1588	40	33.44	5.59	48.6
chr13	73763528	73765137	1610	578	37	48.69	4.47	50.26
chr13	73934775	73935766	992	454	20	30.21	5.34	51.73
chr13	74218081	74219395	1315	620	25	30	5.75	51.46
chr13	74701697	74703125	1429	706	41	47.16	4.14	47.61
chr13	74717353	74718017	665	393	16	31.88	4.93	49.82
chr13	74784602	74785954	1353	656	27	35.43	5.34	47.48
chr13	74913508	74914419	912	503	19	30.36	4.93	51.57
chr13	75008644	75009530	887	251	19	31.7	4.11	49.74
chr13	75244003	75245341	1339	656	30	44.7	6.3	48.77
chr13	75276497	75277341	845	384	19	34.09	5.75	48.17
chr13	75559607	75560531	925	279	21	37.99	4.93	46.41
chr13	75998514	75999959	1446	521	36	51.35	4.69	51.55
chr13	76074701	76075895	1195	449	25	31.08	6.09	50.75
chr13	76532748	76533581	834	579	18	30.49	6.16	51.26
chr13	76550312	76551193	882	319	22	40.68	7.39	46.47
chr13	77241103	77241975	873	272	19	32.48	4.52	49.44
chr13	77503463	77504360	898	626	19	31.11	4.52	50.64
chr13	77506789	77507860	1072	626	21	30.12	5.75	51.63
chr13	77546108	77546742	635	256	16	33.9	5.75	48.62
chr13	77613261	77614134	874	272	20	36.71	5.34	46.91
chr13	77749618	77751185	1568	1305	31	33.78	3.22	48.7
chr13	78008888	78009823	936	257	21	36.27	4.83	46.92
chr13	78426794	78428336	1543	572	30	37.61	3.7	45.76
chr13	78504148	78505615	1468	873	31	44.95	5.34	48.76
chr13	78507050	78508007	958	676	20	31.95	4.93	49.8
chr13	78758718	78759765	1048	606	23	35.21	5.34	47.2
chr13	78791023	78792315	1293	667	27	38.31	5.34	46.39
chr13	79020390	79021508	1119	524	23	31.62	6.16	49.91
chr13	79043323	79044285	963	282	23	40.06	6.16	46.57
chr13	79370359	79371160	802	291	18	32.32	4.93	50.01
chr13	79815048	79815988	941	284	20	32.86	5.34	49.3
chr13	80000445	80002009	1565	971	39	50.41	6.1	51.73
chr13	80122550	80124281	1732	1444	36	38.32	4.79	46.48
chr13	81156405	81157162	758	348	17	30.59	5.34	51.24
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chr13	84257525	84258825	1301	587	26	34.17	4.93	48.01
chr13	84450842	84451730	889	553	19	31.59	6.57	49.94
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chr13	86192626	86193980	1355	722	32	38.2	5.93	46.35
chr13	86300317	86301445	1129	838	31	65.71	6.12	53.8
chr13	86301726	86303186	1461	671	33	49.32	6.98	51.07
chr13	86450992	86453417	2426	1679	67	107.54	6.26	27.27
chr13	86458493	86460203	1711	1251	34	33.6	4.47	48.71
chr13	86493962	86495699	1738	274	46	84.99	6.57	50
chr13	86504149	86505134	986	661	23	38.68	6.16	46.15
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chr13	87190953	87192176	1224	526	28	33.86	4.79	48.65
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chr13	87375084	87376144	1061	605	24	31.7	5.46	49.75
chr13	87396371	87397373	1003	312	23	34.65	4.28	47.65
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chr13	87855045	87856673	1629	557	34	31.23	3.77	50.52
chr13	88150176	88151116	941	674	21	32.91	4.95	49.3
chr13	88447455	88448294	840	566	18	30.16	4.11	51.72
chr13	88576811	88577929	1119	405	27	48.07	4.93	49.22
chr13	88754509	88756695	2187	595	52	32.96	4.21	49.3
chr13	89032024	89033640	1617	957	37	37.48	4.89	46
chr13	89065029	89066968	1940	1364	42	59.69	5.34	56.21
chr13	89348851	89349778	928	578	21	31.36	4.01	50.22
chr13	89432573	89433712	1140	617	24	31.38	5.45	50.24
chr13	89490718	89492038	1321	499	28	40.77	5.75	46.59
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chr13	89864476	89865830	1355	518	30	36.15	4.59	46.96
chr13	90094705	90095637	933	715	20	33.29	4.11	48.81
chr13	90116813	90117900	1088	406	29	53.53	5.33	52.11
chr13	90294256	90295851	1596	954	35	50.1	5.34	51.67
chr13	90394358	90396032	1675	383	32	30.52	3.64	51.3
chr13	90921088	90921892	805	378	20	41.17	5.75	46.48
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chr13	91174385	91175211	827	557	18	30.88	4.93	50.73
chr13	91338186	91339009	824	564	18	31.05	3.7	50.62
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chr13	93506936	93507916	981	548	21	34.77	4.93	47.62
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chr13	94745383	94746396	1014	355	22	33	7.39	49.18
chr13	94872196	94873165	970	290	21	35.38	5.34	47.52
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chr13	95245099	95246195	1097	516	28	41.04	4.79	46.46
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chr13	96646724	96648246	1523	1043	33	39.41	4.14	47.04
chr13	96654874	96655951	1078	708	25	41.84	5.75	47.01
chr13	96871740	96872631	892	508	26	59.58	6.98	55.41
chr13	97054786	97055790	1005	250	22	33.48	5.75	48.6
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chr13	97874473	97875405	933	662	20	31.87	4.39	49.75
chr13	97931040	97931901	862	273	20	37.44	4.93	46.3
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chr13	98977884	98978561	678	209	16	31.05	4.52	50.56
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chr13	100332677	100333591	915	285	24	47.79	5.75	49.34
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chr13	102291597	102293446	1850	1136	36	41.72	6.57	47.21
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chr13	102629948	102630757	810	362	18	31.5	4.89	49.87
chr13	102925300	102926065	766	346	17	30.13	5.75	51.65
chr13	102963546	102964295	750	482	17	31.07	6.16	50.77
chr13	103281823	103282681	859	286	20	37.63	5.34	45.86
chr13	103419028	103420244	1217	500	26	38.28	6.16	46.29
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chr13	104137525	104138476	952	550	20	32.27	4.52	50.07
chr13	104735375	104736022	648	378	16	33.01	5.34	49.16
chr13	104755287	104756152	866	610	20	37.2	5.34	46.91
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chr13	105068445	105070146	1702	538	33	48.57	4.93	49.59
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chr13	105185127	105186116	990	438	21	34.28	5.75	47.79
chr13	105499436	105500263	828	286	19	35.11	4.52	47.37
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chr13	106494743	106495614	872	588	22	41.33	6.57	46.82
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chr13	108799936	108800777	842	572	18	30.05	4.11	51.39
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chr13	109067572	109068690	1119	322	26	43.7	6.57	47.81
chr13	109847990	109849282	1293	698	26	34.55	5.34	47.77
chr13	109950598	109951485	888	289	21	30.45	6.16	51.3
chr13	111024992	111025933	942	609	20	32.8	4.52	49.45
chr13	111240053	111240916	864	371	19	32.99	4.93	49.23
chr13	113035309	113036484	1176	470	24	32.65	6.16	49.35
chr13	113824858	113825545	688	317	16	30.42	4.93	51.34
chr13	113897774	113898795	1022	519	22	32.59	5.34	49.35
chr13	114957553	114958384	832	558	18	30.6	5.34	51.25
chr13	114983889	114985353	1465	932	30	41.26	4.52	46.85
chr14	19066843	19069277	2435	1598	62	41.55	3.83	47.15
chr14	19098278	19100320	2043	664	48	33.88	5.29	48.59
chr14	19588639	19590716	2078	660	53	30.52	4.51	51.3
chr14	19668604	19671464	2861	842	77	37.23	3.78	46.71
chr14	19853649	19854774	1126	459	26	30.24	3.99	51.75
chr14	19866396	19868036	1641	895	55	53.34	4.79	51.62
chr14	20040622	20042102	1481	996	48	34.23	3.44	47.93
chr14	20190363	20191786	1424	758	30	30.88	5.48	50.78
chr14	20209061	20210310	1250	968	31	31.75	3.77	49.79
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chr14	20298036	20301734	3699	642	94	75.27	4.73	59.21
chr14	20327413	20328964	1552	1023	42	32.18	4.61	49.99
chr14	20657572	20658525	954	257	22	30.49	4.05	51.33
chr14	20720701	20722462	1762	1148	36	41.3	4.67	46.9
chr14	20901580	20902842	1263	691	26	35.98	5.34	47.09
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chr14	22107301	22110880	3580	2479	82	59.12	4.19	53.16
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chr14	22664018	22665263	1246	625	32	35.77	4.98	47.11
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chr14	23143162	23144867	1706	521	37	30.05	4.05	51.45
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chr14	24239254	24240563	1310	594	30	31.89	4.48	49.82
chr14	24762360	24763587	1228	547	31	36.48	5.5	47.04
chr14	24989635	24990719	1085	589	28	41.8	4.79	47.07
chr14	25265111	25266383	1273	746	29	40.42	5.58	46.88
chr14	25269056	25269926	871	594	22	31.44	4.45	49.98

chr14	25597051	25598041	991	701	27	33.72	5.85	48.63
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chr14	26122101	26123050	950	291	22	36.52	6.16	46.93
chr14	26339947	26341563	1617	998	38	61.28	5.75	54.51
chr14	26669387	26670389	1003	725	21	31.95	4.38	49.79
chr14	26800327	26800966	640	260	16	33.55	5.75	48.55
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chr14	27033697	27034646	950	274	22	31.27	4.84	50.44
chr14	27055547	27057119	1573	669	37	33.06	3.29	49.15
chr14	27172003	27173350	1348	607	30	47.37	5.34	48.34
chr14	27195149	27195877	729	288	19	41.75	6.98	47.11
chr14	27316927	27318262	1336	563	31	47.16	7.31	47.53
chr14	27604793	27606315	1523	433	31	30.65	4.87	51.14
chr14	27616069	27616783	715	242	18	33.09	4.09	49.2
chr14	27669886	27671556	1671	834	39	40.5	4.85	46.91
chr14	27687548	27688318	771	276	24	54.03	6.85	52.95
chr14	27739692	27741323	1632	599	30	30.59	4.47	51.24
chr14	27748590	27749943	1354	732	30	30.39	4.85	51.61
chr14	27850038	27851310	1273	720	26	35.49	5.34	47.37
chr14	27987790	27988684	895	628	22	32.15	4.64	49.89
chr14	28022642	28023672	1031	384	24	30.98	3.84	50.44
chr14	28331368	28332287	920	652	23	42.77	5.34	47.52
chr14	28341211	28342274	1064	435	23	32.04	7.09	49.79
chr14	28634966	28636873	1908	434	42	35.56	5.6	47.15
chr14	28731426	28732232	807	566	18	31.67	4.48	49.85
chr14	28806164	28807896	1733	701	42	63.44	5.33	55.5
chr14	29015396	29016727	1332	299	38	62.44	6.85	55.51
chr14	29017864	29019641	1778	570	44	73.19	6.57	56.32
chr14	29095729	29097424	1696	1171	40	39.36	4.05	46.8
chr14	29209344	29211473	2130	499	44	37.19	4.11	46.86
chr14	29517170	29518797	1628	1170	35	42.27	4.95	47.31
chr14	29624307	29625100	794	537	19	32.3	4.47	50.08
chr14	29899232	29900344	1113	782	28	42.85	4.64	47.28
chr14	29905313	29906139	827	263	19	31.93	4.23	49.74
chr14	30042932	30044098	1167	512	27	33.33	4.79	48.7
chr14	30189915	30191910	1996	729	39	38.44	4.52	46.35
chr14	30310539	30311661	1123	847	25	39.28	4.52	46.46
chr14	30321020	30321965	946	284	21	36.75	4.93	46.92
chr14	30584208	30585634	1427	776	37	57.53	6.56	53.68
chr14	30767226	30768524	1299	748	29	36.16	4.28	47
chr14	30967829	30970094	2266	456	55	35.29	3.45	47.4
chr14	30978032	30979451	1420	729	38	36.53	4.08	46.94
chr14	31020393	31022688	2296	507	57	44.93	4.77	48.76
chr14	31306875	31309408	2534	745	56	33.96	4.57	48.62
chr14	31387560	31391160	3601	2947	89	36.27	3.88	46.93
chr14	31470313	31471793	1481	714	39	33.83	4.21	48.79
chr14	31939342	31940355	1014	763	26	32.51	4.67	49.37
chr14	32295375	32297427	2053	490	51	34.84	3.89	47.57

chr14	32533545	32536352	2808	1267	60	39.22	3.54	46.42
chr14	32632264	32633390	1127	434	29	36.56	4.36	46.87
chr14	32640431	32641633	1203	291	29	33.49	3.81	48.69
chr14	32766951	32768451	1501	1274	31	35.45	3.68	47.43
chr14	32820108	32821159	1052	678	27	34.98	4.76	47.63
chr14	32968700	32970342	1643	591	44	49.71	6.36	51.6
chr14	32974146	32975451	1306	1025	35	37.74	3.45	46.63
chr14	33033199	33034610	1412	944	35	37.79	3.42	46.71
chr14	33547434	33548952	1519	343	33	32.92	4.11	49.33
chr14	33649823	33651830	2008	461	48	40.76	4.13	46.52
chr14	33695981	33698623	2643	617	55	31.5	3.96	49.86
chr14	33717394	33718922	1529	653	34	34.25	4.03	47.91
chr14	33752583	33754064	1482	1019	32	30.67	3.88	51.07
chr14	33899594	33901833	2240	535	52	39.02	4.89	46.17
chr14	33902446	33903504	1059	311	30	33.57	3.45	48.61
chr14	33979772	33982249	2478	1768	63	42.13	5.88	46.9
chr14	34375286	34377411	2126	541	51	42.22	4.93	46.97
chr14	34949119	34949883	765	272	20	34.15	5.14	47.99
chr14	35014459	35017094	2636	1038	70	30.23	3.44	51.72
chr14	35234473	35236572	2100	1348	63	46.39	3.82	48.48
chr14	35539285	35541128	1844	771	47	30.9	5	50.65
chr14	35743417	35745761	2345	815	66	33.6	3.64	48.7
chr14	35825818	35826769	952	676	26	36.88	4.08	46.72
chr14	35916892	35918830	1939	1506	47	53.81	5.37	52.35
chr14	36015098	36018459	3362	1287	82	43.83	3.72	47.93
chr14	36203481	36205035	1555	845	46	30.68	3.68	51.03
chr14	36448970	36451376	2407	826	64	50	4.67	51.83
chr14	36585040	36587377	2338	592	45	30.98	3.08	50.46
chr14	36620264	36621771	1508	1230	37	31.47	4.21	49.99
chr14	36891361	36892830	1470	958	35	32.27	4.21	50.08
chr14	37377700	37379181	1482	578	43	42.93	4.48	47.41
chr14	37575317	37576917	1601	469	33	32.05	3.59	49.79
chr14	37804713	37806641	1929	580	47	49.44	4.48	51.74
chr14	37966757	37970193	3437	1386	83	58.14	3.64	53.91
chr14	38017705	38020422	2718	1948	68	37.31	4.93	46.66
chr14	38175218	38177966	2749	619	62	40.34	4.28	46.92
chr14	38206639	38208735	2097	670	48	33.76	4.85	48.72
chr14	38267109	38269434	2326	1572	52	53.25	5.82	51.69
chr14	38738087	38739335	1249	722	30	34.41	4.44	47.76
chr14	38833390	38835344	1955	266	41	39.89	4.03	46.57
chr14	38935086	38936615	1530	475	31	32.72	3.6	49.38
chr14	38938243	38939650	1408	1117	35	40.83	3.88	46.36
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chr14	39055710	39057200	1491	937	35	31.89	4.24	49.84
chr14	39170067	39171487	1421	245	34	31.61	3.3	49.96
chr14	39175464	39176520	1057	499	28	37.16	4.98	46.9
chr14	39986510	39987834	1325	640	33	32.12	3.84	49.76
chr14	40091658	40093275	1618	285	31	32.84	3.28	49.38
chr14	40121122	40122731	1610	451	34	32.03	3.77	49.8
chr14	40210024	40211106	1083	504	28	31.19	3.77	50.55
chr14	40406065	40407567	1503	1035	31	37.64	4.57	45.9
chr14	40418270	40419173	904	520	23	31.21	4.61	50.53

chr14	40451620	40452849	1230	529	26	30.42	4.74	51.32
chr14	40462107	40464329	2223	1540	46	34.15	3.88	48.01
chr14	40472027	40473095	1069	730	24	37.01	4.83	46.93
chr14	40544022	40545658	1637	1370	32	40.54	5.34	46.89
chr14	40575927	40577132	1206	434	28	45.76	6.04	50
chr14	40649106	40649873	768	395	19	31.35	5.3	50.23
chr14	40730403	40731783	1381	835	30	45.56	6.57	50.04
chr14	40858646	40860850	2205	1284	56	44.72	4.14	48.8
chr14	40939884	40941572	1689	1187	36	42.88	4.57	47.32
chr14	40967759	40968721	963	586	21	31.7	4.95	49.76
chr14	41068316	41069676	1361	486	31	39.37	5.3	46.85
chr14	41131616	41133114	1499	586	31	32.69	4.24	49.41
chr14	41133521	41137231	3711	1736	83	31.65	3.91	49.91
chr14	41304289	41305169	881	605	19	32.03	4.52	49.73
chr14	41312332	41313226	895	514	20	33.84	4.78	48.74
chr14	41513872	41516021	2150	1581	44	43	5.35	47.46
chr14	41567811	41569055	1245	421	31	34.92	3.64	47.59
chr14	41733604	41734675	1072	288	28	36.24	5.29	46.95
chr14	42007165	42008289	1125	485	30	34.35	5.42	47.85
chr14	42337782	42340359	2578	906	62	31.04	3.18	50.54
chr14	42452956	42454381	1426	884	40	33.88	4.4	48.61
chr14	42491914	42493133	1220	787	30	32.4	4.21	49.7
chr14	42871297	42873072	1776	972	51	50	4.71	51.9
chr14	42957202	42959824	2623	760	65	34.37	4.43	47.81
chr14	43072815	43074218	1404	717	34	30.09	4.64	51.54
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chr14	43141054	43142474	1421	1114	45	40.07	4.11	46.57
chr14	43182297	43185801	3505	2122	88	40.26	4.02	46.84
chr14	43379503	43382242	2740	1900	60	46.87	4.03	47.32
chr14	43394425	43395622	1198	324	31	30.24	4.08	51.76
chr14	43479893	43482110	2218	1186	46	30.52	3.09	51.3
chr14	43522805	43524576	1772	1323	48	60.97	5.07	54.72
chr14	43601820	43604280	2461	1628	61	61.14	5.92	54.79
chr14	43697579	43699985	2407	279	58	34.63	3.81	47.74
chr14	43834294	43836757	2464	475	64	32.97	4.11	49.23
chr14	43846966	43850515	3550	2902	95	39.27	3.64	46.42
chr14	44233640	44235488	1849	748	48	40.74	3.81	46.61
chr14	44246696	44248512	1817	947	51	34.32	4.79	47.79
chr14	44514293	44515621	1329	975	35	34.62	4.77	47.79
chr14	44561631	44564196	2566	779	61	30.05	3.7	51.45
chr14	44587883	44590218	2336	280	63	30.36	3.45	51.63
chr14	44654088	44656231	2144	1832	53	45.42	4.28	49.71
chr14	44803511	44805174	1664	287	36	38.16	4.24	46.22
chr14	45042322	45043194	873	273	24	33.31	4.01	48.78
chr14	45298424	45299981	1558	810	44	66.64	7.12	54.9
chr14	45351145	45352430	1286	717	37	71.67	5.71	54.9
chr14	45524848	45527103	2256	1320	57	61.14	6.66	55
chr14	45822505	45824255	1751	506	40	44.81	5.14	48.95
chr14	45869259	45870743	1485	766	34	41.64	5.77	47.15
chr14	45997689	45999173	1485	970	31	31.3	4.11	50.35
chr14	46000364	46002391	2028	693	47	47.28	5.27	48.14
chr14	46229396	46230995	1600	1326	46	84.41	7.15	48.78

chr14	46304102	46305055	954	620	21	33.98	5.12	48.56
chr14	46344263	46345416	1154	864	25	32.44	4.52	49.54
chr14	46389946	46391318	1373	678	33	47.3	6.4	48.1
chr14	46427611	46429351	1741	957	45	56.77	5.98	53.06
chr14	46470431	46473451	3021	1515	71	39.76	3.95	46.71
chr14	46480593	46481605	1013	276	21	33.06	5.34	49.12
chr14	46560846	46562409	1564	743	46	81.97	4.69	48.98
chr14	46761697	46763387	1691	580	31	37.72	3.92	46.56
chr14	46775627	46777411	1785	616	49	37.02	4.89	46.97
chr14	46869841	46870575	735	387	18	32.83	5.33	49.39
chr14	46871720	46872976	1257	668	26	33	4.67	49.16
chr14	47058232	47059865	1634	1124	39	44.01	5.6	48.06
chr14	47076060	47077522	1463	1177	32	40.77	4.79	46.57
chr14	47276265	47277097	833	290	19	34.81	5.34	47.51
chr14	47396741	47397879	1139	530	26	42.05	5.71	47.06
chr14	47514669	47515608	940	657	21	34.78	4.33	47.6
chr14	47544498	47545492	995	278	20	30.06	4.11	51.48
chr14	47566982	47568783	1802	1338	45	50.92	4.87	51.9
chr14	47637030	47639034	2005	1737	42	31.76	4.68	49.86
chr14	47663296	47665131	1836	1202	37	33.06	4.19	49.15
chr14	47702162	47704035	1874	643	40	41.56	4.24	47.17
chr14	47863900	47865435	1536	978	37	61.15	4.89	55.21
chr14	47945354	47946664	1311	657	31	37.77	5.32	46.63
chr14	48279945	48280852	908	243	20	30.8	4.19	51.03
chr14	48292546	48293680	1135	543	24	30.39	4.57	51.62
chr14	48329171	48330306	1136	568	24	34.6	5.34	47.74
chr14	48580424	48581114	691	266	18	31.72	4.19	49.74
chr14	48601207	48603695	2489	577	57	47.44	5.29	48.51
chr14	48760049	48762337	2289	1678	47	31.17	4.36	50.55
chr14	48820023	48821966	1944	1391	38	48.15	4.93	49.41
chr14	48974280	48975625	1346	693	34	36.68	4.59	46.9
chr14	49227097	49229051	1955	1448	52	79.14	4.99	59.32
chr14	49542803	49544311	1509	278	32	32.69	3.05	49.41
chr14	49648959	49649829	871	273	21	37.09	4.95	46.95
chr14	49685394	49686886	1493	955	32	34.8	3.46	47.53
chr14	50508962	50509892	931	554	20	30.12	4.62	51.63
chr14	51133450	51136272	2823	2065	63	30.04	3.63	51.45
chr14	51233496	51234526	1031	330	30	30.48	3.7	51.27
chr14	51358870	51360619	1750	1473	35	40.06	4.19	46.59
chr14	51375584	51376455	872	286	21	31.38	4.79	50.23
chr14	51625783	51628273	2491	1934	60	30.06	4.16	51.46
chr14	51644961	51646936	1976	582	47	30.8	4.55	51.02
chr14	51724315	51727644	3330	1446	93	35	3.6	47.64
chr14	52058615	52060059	1445	864	37	35.86	3.71	46.99
chr14	52084448	52086098	1651	802	44	59.46	4.7	55.52
chr14	52146538	52148433	1896	1032	47	32.96	3.95	49.26
chr14	52807808	52809707	1900	843	40	36.24	3.69	46.95
chr14	52883467	52885149	1683	1042	40	39.25	3.7	46.37
chr14	52897495	52898758	1264	1006	32	32.46	3.96	49.45
chr14	53600936	53604191	3256	2472	70	31.03	4.01	50.48
chr14	53716730	53717689	960	257	24	33.83	4.45	48.74
chr14	53760175	53761259	1085	464	23	33.29	6.16	48.83



chr14	54049321	54050628	1308	623	31	31.04	4.81	50.53
chr14	54467702	54468915	1214	593	27	32.16	4.89	49.87
chr14	54691207	54692732	1526	678	41	36.67	3.66	47.01
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chr14	54834938	54837155	2218	1514	46	40.56	6.04	46.9
chr14	55050411	55056176	5766	742	135	70.34	5.15	53.51
chr14	55385291	55387076	1786	1184	36	36.8	5.21	46.78
chr14	55459013	55460791	1779	883	51	36.89	3.45	46.7
chr14	56501088	56502794	1707	940	39	57.29	4.38	53.61
chr14	56729606	56730390	785	338	20	33.34	4.15	48.7
chr14	56733525	56735139	1615	1034	33	36.61	3.36	46.95
chr14	56902502	56903953	1452	646	37	33.04	3.87	49.11
chr14	56969475	56970814	1340	577	30	34.85	5.48	47.6
chr14	57355029	57357157	2129	656	44	32.02	4.05	49.76
chr14	57605397	57608379	2983	1462	61	31.84	3.71	49.72
chr14	57613972	57614676	705	420	20	48.75	4.93	50.53
chr14	57661230	57663190	1961	1389	48	32.64	3.42	49.31
chr14	57856609	57859582	2974	659	75	37.64	4.49	45.91
chr14	57968811	57969714	904	282	24	46.58	6.37	47.72
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chr14	58704544	58707361	2818	1020	79	62.16	4.06	54.01
chr14	58982619	58984836	2218	1273	52	34.53	3.26	47.73
chr14	59222692	59223681	990	726	21	30.28	4.57	51.66
chr14	59303302	59304708	1407	519	38	63.13	5.1	53.7
chr14	59321944	59323660	1717	1108	43	42.3	5.15	47.4
chr14	59433600	59434520	921	282	22	38.23	6.16	46.31
chr14	59452981	59454050	1070	794	26	35	6.16	47.6
chr14	59478033	59479268	1236	572	29	30.62	5.92	51.19
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chr14	59850457	59852093	1637	954	40	34.5	5.09	47.64
chr14	59993118	59996070	2953	1617	59	42.22	4.57	46.94
chr14	60074195	60075156	962	456	28	32.52	5.01	49.38
chr14	60129590	60131064	1475	647	34	34.07	4.2	48.26
chr14	60210278	60211706	1429	676	33	30.03	5.24	51.48
chr14	60218550	60220217	1668	1384	36	30.18	3.81	51.67
chr14	60259248	60260307	1060	329	24	31.17	4.33	50.54
chr14	60277585	60279900	2316	686	52	60.63	5.65	55.35
chr14	60386767	60388425	1659	906	45	41.83	4.89	46.99
chr14	60400451	60402535	2085	584	42	32.15	4.57	49.95
chr14	60464868	60466336	1469	822	35	36.9	4.16	46.75
chr14	60552282	60554860	2579	538	62	41.12	4.04	46.37
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chr14	60942052	60944538	2487	748	59	39.19	4.44	46.25
chr14	61805059	61806000	942	662	24	30.61	3.81	51.2
chr14	61872330	61874314	1985	642	39	31.51	4.79	49.89
chr14	62147456	62151355	3900	3085	90	33.22	3.81	49.16
chr14	62198630	62202264	3635	756	98	30.29	4.18	51.67
chr14	62645715	62647345	1631	555	37	37.56	4.61	45.97
chr14	62842476	62844750	2275	396	60	32.12	3.88	49.77
chr14	62894601	62895507	907	269	22	36.72	5.9	47.02

chr14	62895537	62896911	1375	575	30	40.33	4.95	46.83
chr14	62910690	62912296	1607	517	33	52.75	3.5	50.57
chr14	63081075	63081941	867	555	24	34.21	4.98	47.95
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chr14	63195298	63196874	1577	1043	36	39.19	5.76	46.27
chr14	63211080	63212407	1328	798	35	39.73	4.51	46.62
chr14	63222928	63224556	1629	1040	33	40.9	4.52	46.33
chr14	63323075	63324169	1095	443	25	40.85	5.34	46.35
chr14	63384703	63386491	1789	1402	43	33.71	4	48.62
chr14	63722830	63723807	978	611	24	37.59	5.58	45.85
chr14	63726310	63727678	1369	616	36	49.94	8.06	51.69
chr14	63882486	63885115	2630	595	65	40.49	3.66	46.97
chr14	64193153	64195454	2302	1240	70	30.23	4.13	51.72
chr14	64565429	64568710	3282	2780	70	50.2	4.67	51.38
chr14	65082756	65084523	1768	1173	44	32.17	4.01	49.94
chr14	65139713	65140582	870	617	19	31.14	3.98	50.63
chr14	65963324	65964758	1435	1181	31	30.36	3.26	51.65
chr14	65965043	65966198	1156	491	29	34.88	4.98	47.68
chr14	66113255	66115950	2696	1271	65	40.15	4.18	46.71
chr14	66139941	66142074	2134	669	48	37.98	4.57	46.39
chr14	66532307	66533653	1347	564	31	31.45	4.05	50.04
chr14	67090830	67091862	1033	622	27	34.97	4.05	47.61
chr14	67147722	67149902	2181	849	49	32.9	5.14	49.34
chr14	67179070	67180355	1286	576	31	34.54	3.74	47.75
chr14	67294271	67295563	1293	848	36	46.86	4.89	47.28
chr14	67321691	67322836	1146	699	27	36.35	6	47.11
chr14	67917179	67918117	939	316	24	41.36	6.09	46.98
chr14	68148516	68150940	2425	866	72	57.46	3.81	53.79
chr14	68436730	68439538	2809	1341	79	58.26	4.43	54.15
chr14	68474215	68476925	2711	1108	69	42.48	3.53	47.27
chr14	68640656	68642351	1696	1408	40	30.02	4.15	51.48
chr14	68673078	68674437	1360	420	36	37.96	4.03	46.5
chr14	68725110	68726650	1541	255	34	31.69	3.26	49.77
chr14	68730117	68733998	3882	1620	92	39.39	3.42	46.93
chr14	69226941	69227825	885	243	20	36.04	4.52	46.89
chr14	69331669	69332823	1155	535	30	36.03	4.81	46.94
chr14	69544280	69546111	1832	759	46	30.15	3.55	51.66
chr14	69856510	69858646	2137	1700	60	51.07	4.09	51.7
chr14	69940999	69942257	1259	802	30	39.11	4.45	46.31
chr14	70452226	70453255	1030	251	24	34.58	4.09	47.69
chr14	70552399	70553171	773	486	18	30.99	4.62	50.47
chr14	70817101	70818891	1791	825	49	51.92	4	51.04
chr14	70901649	70902926	1278	594	28	36.43	7.07	47.19
chr14	71166474	71168260	1787	1148	44	63.12	6.4	53.21
chr14	71348521	71350611	2091	311	48	34.01	3.42	48.56
chr14	71412476	71414029	1554	497	40	38.03	3.93	46.42
chr14	71576647	71578664	2018	556	49	45.82	3.94	49.89
chr14	71690799	71692514	1716	941	37	45.14	4.95	48.87
chr14	71880303	71881595	1293	734	33	51.23	4.84	51.32
chr14	71893116	71894690	1575	561	33	31.16	4.15	50.56
chr14	72210758	72212277	1520	483	32	32.88	4.11	49.32
chr14	72354037	72355412	1376	571	32	41.44	5.24	46.97

chr14	72580030	72580851	822	562	24	43.06	5.82	47.28
chr14	72652952	72653918	967	309	20	31.1	5.3	50.63
chr14	72732204	72733041	838	329	18	30.27	6.16	51.68
chr14	73136483	73137234	752	461	17	30.95	6.57	50.53
chr14	73448816	73450190	1375	761	32	31.4	4.24	50.21
chr14	73565354	73566918	1565	761	41	35.24	4.48	47.31
chr14	73591578	73593493	1916	1086	48	30.19	3.25	51.75
chr14	74069346	74070267	922	280	24	31.79	3.81	49.84
chr14	74624537	74626055	1519	717	39	35.53	6.35	47.23
chr14	74638254	74639898	1645	600	35	31.09	3.81	50.64
chr14	74929646	74930690	1045	416	23	31.19	4.95	50.51
chr14	74967659	74969036	1378	624	35	31.27	4.72	50.45
chr14	75161147	75163322	2176	1506	62	58.67	4.21	52.52
chr14	75970713	75972436	1724	415	41	36.64	4.13	47.01
chr14	76066616	76068533	1918	1345	41	44.64	5.05	48.91
chr14	76139887	76142515	2629	2263	69	34.11	4.36	48.11
chr14	76360045	76361996	1952	1129	48	35.07	4.31	47.38
chr14	76877411	76878249	839	214	21	43.57	4.52	47.96
chr14	77039721	77040590	870	629	19	32.65	5.34	49.31
chr14	77159089	77159871	783	282	20	37.91	5.65	46.61
chr14	77358946	77360486	1541	715	35	43.17	5.83	47.47
chr14	77654551	77655869	1319	623	29	33.82	4.54	48.83
chr14	78045809	78047420	1612	936	44	31.82	4.13	49.81
chr14	78128861	78129714	854	569	23	35.94	5.43	47.07
chr14	78142294	78145473	3180	968	73	52.69	4.13	50.64
chr14	78296613	78297907	1295	514	29	44.81	4.83	48.91
chr14	78606440	78607363	924	391	21	35.71	4.72	47.25
chr14	78818207	78819440	1234	679	25	33.62	6.16	48.71
chr14	78996260	78997492	1233	447	33	57.93	6.16	53.28
chr14	79369302	79371942	2641	359	60	58.81	3.84	52.12
chr14	80046097	80047471	1375	676	30	41.93	5.84	46.99
chr14	80051108	80052061	954	315	21	33.37	4.67	48.69
chr14	80145173	80146007	835	569	19	30.93	3.81	50.58
chr14	80340764	80342102	1339	611	28	32.12	5.1	49.73
chr14	80544716	80545678	963	268	23	36.3	5.39	46.97
chr14	80699818	80702071	2254	1548	49	37.75	4.98	46.65
chr14	80738794	80741660	2867	598	65	45.44	3.87	49.67
chr14	80764095	80765613	1519	1100	40	34.74	3.95	47.64
chr14	81068178	81070561	2384	631	71	59.88	4.37	56.84
chr14	81106862	81108258	1397	780	39	37.83	4.18	46.69
chr14	81261225	81263923	2699	1298	65	31.47	3.7	50
chr14	81308265	81310927	2663	367	76	39.84	3.88	46.63
chr14	81877700	81878946	1247	578	29	32.39	4.52	49.76
chr14	82271442	82272342	901	457	25	30.78	5.14	50.98
chr14	82361658	82362487	830	279	20	34.25	5.21	47.9
chr14	82386438	82388337	1900	1135	50	48.96	4.57	50.32
chr14	82538602	82539623	1022	427	21	32.59	4.52	49.35
chr14	82666510	82668876	2367	1547	51	76.74	6.98	54.17
chr14	82704273	82705343	1071	630	22	30.16	4.11	51.62
chr14	82706758	82708692	1935	1144	40	37.85	5.58	46.82
chr14	83227536	83229311	1776	974	45	33.19	4.21	49.05
chr14	83252432	83253454	1023	429	27	38.55	4.89	46.26

chr14	83277177	83278395	1219	465	27	34.45	5.46	47.76
chr14	83373349	83374823	1475	775	33	32.91	4.99	49.32
chr14	83556313	83557167	855	597	21	30.87	5.65	50.8
chr14	83563339	83564249	911	407	22	38.84	5.34	46.22
chr14	83647375	83648939	1565	1313	36	33.35	3.42	48.69
chr14	83664437	83665968	1532	930	36	42.26	6.51	47.22
chr14	83680887	83681914	1028	265	24	32.28	3.92	50.07
chr14	83748618	83750813	2196	376	47	42.63	4.61	47.39
chr14	83931487	83934056	2570	1040	58	34.2	4.14	47.91
chr14	83953214	83955657	2444	749	53	39.1	5.81	46.39
chr14	84046870	84048233	1364	713	36	68.61	6.98	56.25
chr14	84058180	84059063	884	609	22	31.72	4.54	49.74
chr14	84127810	84129966	2157	850	47	36.25	4.05	46.91
chr14	84282633	84284253	1621	579	37	41.15	4.45	46.43
chr14	84630237	84631027	791	274	20	31.94	3.73	49.76
chr14	84672708	84674174	1467	624	33	35.33	3.08	47.46
chr14	84705063	84706452	1390	763	32	32.48	5.6	49.5
chr14	84863847	84865165	1319	699	58	143.85	17.28	18.75
chr14	84890915	84892473	1559	1251	38	47.95	4.45	49.38
chr14	85097579	85099214	1636	926	41	53.73	4.75	52.14
chr14	85100513	85102606	2094	1276	50	59.32	5.53	54.61
chr14	85188596	85190100	1505	990	39	65.15	6.47	54.49
chr14	85306270	85308055	1786	556	40	35.88	3.77	47.05
chr14	85386655	85387820	1166	517	28	44.11	5.33	48.05
chr14	85465947	85467586	1640	509	32	40.4	4.52	46.79
chr14	85598841	85600259	1419	784	30	31.75	4.84	49.81
chr14	85622380	85623202	823	236	20	33.58	4.01	48.64
chr14	85683376	85684405	1030	745	23	36.18	5.34	46.84
chr14	85697749	85698638	890	549	19	31.54	4.52	49.9
chr14	86203055	86204413	1359	844	29	42.74	6.98	47.52
chr14	86492360	86493438	1079	615	26	31.05	4.85	50.59
chr14	86514681	86515997	1317	351	37	38.66	4.04	46.06
chr14	86615118	86617236	2119	1385	59	74.04	4.98	59.26
chr14	86850350	86852710	2361	1026	50	31.61	3.17	49.94
chr14	86866187	86867415	1229	956	32	36.75	4.39	46.98
chr14	86911072	86912283	1212	520	29	31.85	3.74	49.76
chr14	87054089	87055658	1570	1310	39	34.22	4.49	47.92
chr14	87199524	87200621	1098	454	28	34.13	5.24	48.11
chr14	87236647	87238505	1859	766	48	30.89	3.18	50.64
chr14	87302531	87304708	2178	679	54	41.25	4.73	46.81
chr14	87689082	87691041	1960	587	45	32.91	4.49	49.29
chr14	87911518	87913713	2196	1262	50	35.59	3.74	47.19
chr14	88210294	88211749	1456	891	38	31.12	3.63	50.71
chr14	88244958	88246910	1953	1713	44	37.78	3.67	46.66
chr14	88331428	88332547	1120	463	28	34.61	6.34	47.74
chr14	88457372	88460880	3509	1844	111	53.49	4.69	52.09
chr14	88634589	88637900	3312	2462	71	34.66	4.42	47.74
chr14	89093232	89094638	1407	923	38	44.74	4.76	48.93
chr14	89104425	89105658	1234	696	29	33.66	4.89	48.66
chr14	89219198	89221899	2702	2154	63	43.24	3.95	47.73
chr14	89294599	89295906	1308	564	34	32.65	4.77	49.36
chr14	89385355	89386824	1470	776	35	50.59	6.85	51.71

chr14	89391067	89391867	801	530	20	30.81	4.7	50.98
chr14	89467470	89468874	1405	614	32	52.48	4.93	50.62
chr14	89509560	89511382	1823	439	44	55.53	4.99	53.81
chr14	89990581	89992477	1897	431	40	49.58	6.02	51.23
chr14	90388017	90389782	1766	401	46	43.65	4.57	48
chr14	90401393	90402892	1500	643	37	30.68	3.87	51.03
chr14	90475591	90477453	1863	471	44	32.48	3.4	49.47
chr14	90680624	90681335	712	350	19	37.8	5.21	46.66
chr14	90815540	90817242	1703	1081	39	48.32	3.97	49.6
chr14	90927050	90927973	924	558	30	71.94	9.51	57.73
chr14	91040365	91040925	561	280	15	37.66	6.16	46.06
chr14	91164064	91165331	1268	312	34	30.43	3.42	51.29
chr14	91394491	91397452	2962	782	63	37.33	3.84	46.68
chr14	91399337	91401302	1966	1234	43	39.41	5.37	47.01
chr14	91799300	91800603	1304	721	28	35.84	7.9	47
chr14	91940820	91944004	3185	403	73	32.74	3.39	49.37
chr14	92045438	92046478	1041	580	21	30.03	5.18	51.47
chr14	92059919	92062047	2129	640	48	37.76	5.15	46.64
chr14	92078111	92080074	1964	520	47	43.2	4.89	47.57
chr14	92122731	92124280	1550	1275	33	31.56	4.11	49.96
chr14	92246978	92249291	2314	1629	67	30.86	4.23	50.85
chr14	92372890	92374359	1470	719	32	33.81	4.03	48.88
chr14	92403039	92403956	918	569	19	30.05	3.7	51.47
chr14	92472440	92473833	1394	718	42	45.73	6.9	49.92
chr14	92731194	92732078	885	330	22	40.48	5.75	46.93
chr14	93188170	93189342	1173	606	25	32.13	4.95	49.82
chr14	93253693	93256018	2326	521	57	39.31	4.31	46.57
chr14	93256306	93261718	5413	1152	124	44.58	2.85	48.88
chr14	93444505	93445466	962	587	20	30.77	4.43	50.99
chr14	93567485	93569007	1523	1002	34	49.99	6.16	51.77
chr14	93707203	93709210	2008	1601	51	94.43	6.57	32.14
chr14	93754518	93755534	1017	290	36	48.29	4.16	49.36
chr14	93762518	93764862	2345	2104	54	46.15	3.98	49.14
chr14	93768735	93770324	1590	610	37	38.8	4.89	46.11
chr14	94085120	94087704	2585	1124	65	35.71	3.44	47.23
chr14	94096061	94097570	1510	487	39	53.7	5.43	51.96
chr14	94122458	94124572	2115	1007	48	34.48	3.19	47.74
chr14	94328319	94329999	1681	609	33	36.36	3.58	47.18
chr14	94443880	94445987	2108	1728	51	32.46	3.37	49.45
chr14	94525082	94527527	2446	507	56	67.57	5.58	54.23
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chr14	95494700	95496855	2156	729	49	59.46	5.52	55.33
chr14	95499585	95501804	2220	391	53	30.52	4.05	51.3
chr14	95980843	95982998	2156	1340	56	42.2	3.96	47.02
chr14	96257200	96258306	1107	827	24	31.76	4.19	49.85
chr14	96371847	96373757	1911	1435	38	46.06	4.93	49.3
chr14	96556336	96557884	1549	795	44	33.91	4.79	48.68
chr14	96654833	96655910	1078	428	23	31.34	4.33	50.21
chr14	96758823	96761884	3062	601	75	47.69	4.74	49.3
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chr14	97122631	97125009	2379	1988	57	55.72	5.29	53.67
chr14	97336513	97339888	3376	453	79	36.82	4.22	46.83
chr14	97417925	97418791	867	641	20	32.02	4.09	49.79
chr14	97433656	97435675	2020	925	51	31.04	3.42	50.54
chr14	97538111	97538993	883	454	22	30.23	4.41	51.71
chr14	97638500	97639589	1090	437	28	35.76	5.66	47.08
chr14	97827730	97828608	879	282	19	32.14	6.16	49.88
chr14	98065808	98067372	1565	1274	45	59.14	4.28	53.33
chr14	98147006	98148157	1152	482	23	30.08	5.34	51.53
chr14	98228864	98230596	1733	1177	37	47.17	5.51	47.66
chr14	98328059	98328892	834	546	18	30.49	4.11	51.26
chr14	98395765	98396708	944	583	20	32.69	4.11	49.42
chr14	98886564	98887937	1374	594	26	30.95	5.34	50.53
chr14	99110620	99111261	642	360	18	39.47	6.47	47.06
chr14	99903324	99906033	2710	402	62	44.51	4	48.73
chr14	100066899	100067900	1002	281	22	32.61	5.64	49.44
chr14	100525167	100526435	1269	560	32	46.87	6.23	47.44
chr14	100781134	100782921	1788	467	40	30.95	4.13	50.52
chr14	100783577	100785404	1828	980	45	54.8	4.45	54.29
chr14	101037864	101038676	813	462	18	31.68	5.75	49.84
chr14	101194996	101195940	945	483	21	36.81	4.52	46.82
chr14	101289860	101290621	762	289	21	49.32	5.34	51.08
chr14	101465081	101466464	1384	608	32	40.25	5.88	46.71
chr14	101803168	101804306	1139	483	24	34.45	6.57	47.75
chr14	101890866	101892170	1305	810	29	31.95	5.71	49.76
chr14	102127759	102129097	1339	542	37	49.97	6.28	51.64
chr14	102179985	102180896	912	253	19	30.36	4.52	51.57
chr14	102504134	102505259	1126	495	23	31.29	5.34	50.34
chr14	103362335	103364077	1743	1167	50	36.16	3.91	46.96
chr14	103924403	103926270	1868	1185	49	31.74	4.34	49.77
chr14	103974502	103976263	1762	1311	37	41.15	5.21	46.39
chr14	104226827	104228034	1208	655	32	31.72	4.55	49.73
chr14	104311841	104313471	1631	623	30	33.97	4.28	48.61
chr14	105110719	105111675	957	672	27	35.89	5.56	46.95
chr14	105319859	105320736	878	289	20	36.46	6.16	47.12
chr14	106129557	106130835	1279	637	32	38.31	4.98	46.41
chr14	106887430	106888316	887	422	21	34.31	4.79	47.84
chr15	20036982	20039405	2424	661	70	68.43	4.28	55.73
chr15	20054174	20055384	1211	409	30	49.71	5.71	51.66
chr15	20072912	20074209	1298	523	25	30.73	5.75	51.04
chr15	20340946	20342497	1552	1007	32	33.78	3.9	48.7
chr15	20482700	20484150	1451	632	35	56.63	6.04	53.49
chr15	20595857	20597490	1634	1232	39	38.55	3.39	46.24
chr15	20600876	20603552	2677	614	60	31.68	3.4	49.83
chr15	20936163	20937621	1459	802	31	45.42	7.39	49.64
chr15	21102141	21103498	1358	415	34	59.74	4.52	56.4
chr15	21200468	21201634	1167	616	26	40.96	6.57	46.35
chr15	21314799	21315762	964	283	22	35.72	5.34	47.25
chr15	21338473	21339486	1014	281	22	33	5.75	49.18
chr15	22370859	22371767	909	302	20	34.64	6.16	47.61
chr15	24355884	24356899	1016	547	23	36.96	5.34	46.98
chr15	25608255	25609708	1454	1115	31	30.75	3.66	50.94

chr15	25666042	25668110	2069	1373	48	52.55	5.48	50.24
chr15	27363998	27364891	894	450	20	35.51	4.93	47.23
chr15	27554553	27555355	803	511	19	36.67	5.34	47.02
chr15	28483872	28484564	693	360	16	30.12	4.93	51.63
chr15	28702727	28703984	1258	575	30	39.17	4.79	46.26
chr15	28719607	28720803	1197	339	28	35.28	4.45	47.38
chr15	28940435	28941712	1278	612	25	31.61	5.34	49.96
chr15	29552188	29553171	984	419	23	38.8	6.16	46.08
chr15	30935419	30937279	1861	1069	42	37.64	4.36	45.92
chr15	32044693	32045749	1057	701	21	30.84	4.93	50.83
chr15	32061982	32063014	1033	549	22	32.03	6.57	49.77
chr15	32242747	32244144	1398	605	39	80.75	9.86	52.94
chr15	32949554	32950406	853	574	22	42.6	5.34	47.33
chr15	33095120	33096036	917	398	20	34.18	5.34	47.96
chr15	33211554	33213049	1496	1241	34	51.47	4.93	51.78
chr15	34203230	34204098	869	322	19	32.71	4.52	49.41
chr15	34404414	34405309	896	616	20	35.39	6.57	47.63
chr15	35156755	35158024	1270	544	28	38.29	5.33	46.36
chr15	35169150	35170441	1292	775	31	54.99	7.8	53.73
chr15	35803384	35804432	1049	769	24	39.28	7.39	46.43
chr15	36096923	36097852	930	687	20	33.46	4.52	48.63
chr15	36305216	36305786	571	285	15	32.66	6.16	49.32
chr15	36471685	36472595	911	677	19	30.42	4.52	51.31
chr15	36475629	36476541	913	252	24	47.93	5.34	49.28
chr15	36611801	36612790	990	265	21	33.25	4.83	48.92
chr15	36750017	36750841	825	542	19	35.3	5.34	47.33
chr15	37349029	37350100	1072	643	27	38.68	4.45	46.17
chr15	37914100	37915259	1160	534	26	36.51	4.95	47.01
chr15	37928448	37929257	810	521	19	32.4	4.57	49.67
chr15	38195693	38196666	974	568	24	43.82	6.98	47.93
chr15	38256077	38257141	1065	684	22	30.45	4.93	51.29
chr15	38427479	38428223	745	267	20	30.66	4.67	51.03
chr15	38563485	38564555	1071	625	25	42.25	5.34	47.1
chr15	38810735	38811754	1020	577	21	32.69	4.11	49.36
chr15	38855901	38858421	2521	1814	67	65.85	3.81	54.12
chr15	38971899	38972852	954	523	27	39.47	4.94	47.09
chr15	39125027	39126093	1067	476	25	42.49	4.93	47.34
chr15	39544311	39546178	1868	1282	37	44.43	4.52	48.42
chr15	40564995	40566188	1194	447	25	35.56	4.93	47.16
chr15	40778292	40779126	835	567	18	30.44	3.7	51.32
chr15	40923838	40924592	755	479	17	30.77	4.93	50.95
chr15	41045496	41046917	1422	908	31	32.21	3.99	49.96
chr15	41172755	41173617	863	361	20	37.38	4.52	46.58
chr15	41231153	41232036	884	434	20	32.15	4.57	49.94
chr15	41281333	41282129	797	511	18	31.7	5.24	49.75
chr15	42451881	42453600	1720	1043	34	40.39	4.52	46.79
chr15	42704186	42705903	1718	997	41	64.9	4.78	53.8
chr15	42771477	42772823	1347	557	30	35.17	4.84	47.09
chr15	42993121	42994582	1462	568	31	45.26	5.75	49.21
chr15	43135811	43137484	1674	1138	41	52.48	5.48	50.55
chr15	43346505	43347768	1264	515	28	38.6	4.95	46.12
chr15	43367714	43368617	904	706	19	30.79	4.52	50.91

chr15	43415016	43416276	1261	539	29	35.43	5.14	47.47
chr15	43463257	43464201	945	329	21	36.81	4.52	46.82
chr15	43773140	43775651	2512	1993	55	73	5.34	57.3
chr15	43912959	43913486	528	264	16	41.71	5.79	47.24
chr15	43928099	43928812	714	275	19	42.87	4.52	47.27
chr15	44342574	44343170	597	322	16	35.79	5.64	47.12
chr15	44579335	44581458	2124	1334	109	172.56	13.3	13.33
chr15	44666762	44667788	1027	617	25	44.94	4.93	48.76
chr15	45009387	45011231	1845	531	51	65.45	4.98	54.02
chr15	45011243	45013895	2653	640	64	69.92	5.65	52.89
chr15	45343719	45345105	1387	706	30	31.3	4.36	50.33
chr15	45598273	45599481	1209	592	26	33.33	6.02	48.71
chr15	46794616	46795309	694	324	16	30.06	4.11	51.46
chr15	47398240	47399560	1321	745	27	36.94	4.93	46.89
chr15	47648313	47649499	1187	730	31	62.05	5.34	53.97
chr15	48644924	48645654	731	445	17	30.32	5.12	51.57
chr15	48681734	48682523	790	260	20	42.22	5.75	46.94
chr15	49054065	49054946	882	434	19	31.98	5.34	49.78
chr15	49399920	49402436	2517	918	58	36.94	4.73	46.87
chr15	49833324	49834095	772	291	20	38.08	5.21	46.42
chr15	49966649	49967875	1227	725	26	31.81	4.47	49.85
chr15	50112083	50113090	1008	517	25	43.4	5.12	47.86
chr15	50388938	50389846	909	285	20	34.64	6.98	47.61
chr15	50411332	50412248	917	632	21	36.76	6.37	46.97
chr15	50895696	50896595	900	283	20	31.24	5.71	50.47
chr15	51021192	51022459	1268	505	33	61.13	7.39	54.37
chr15	51027877	51028546	670	333	21	46.11	5.48	49.3
chr15	51294087	51295832	1746	685	38	44.44	5.16	48.55
chr15	51675380	51676210	831	543	19	34.93	4.52	47.61
chr15	51820705	51821558	854	259	19	33.57	4.93	48.6
chr15	51987394	51988181	788	277	20	38.16	5.33	46.23
chr15	52251547	52252456	910	635	23	43.43	5.34	47.99
chr15	52311056	52311668	613	338	17	34.8	5.46	47.58
chr15	52715736	52717306	1571	1052	33	43.64	5.75	47.8
chr15	52859488	52861539	2052	1801	49	44.96	3.97	48.79
chr15	52873720	52875633	1914	1275	38	34.28	3.77	47.82
chr15	53094695	53095661	967	576	21	35.55	6.16	47.19
chr15	54629501	54630322	822	537	18	31.16	5.34	50.58
chr15	54971196	54972100	905	640	19	30.73	6.16	50.98
chr15	55134010	55135402	1393	765	27	33.62	4.93	48.72
chr15	55153044	55153957	914	281	23	43.16	4.93	47.44
chr15	55174708	55176299	1592	1327	32	42.63	4.93	47.34
chr15	55476082	55477540	1459	1204	31	39.76	4.19	46.69
chr15	55811204	55812169	966	450	20	31.53	5.75	49.91
chr15	55818467	55819321	855	628	20	37.88	6.57	46.61
chr15	55995912	55996935	1024	660	24	40.73	5.75	46.59
chr15	56101793	56102431	639	372	17	38.51	6.57	46.33
chr15	56335232	56336574	1343	561	31	34.11	5.82	48.1
chr15	56547168	56548446	1279	543	29	47.12	5.75	47.46
chr15	56869550	56870913	1364	695	31	38.48	5.59	46.39
chr15	56879105	56880390	1286	450	32	53.47	5.33	51.91
chr15	57172129	57173180	1052	350	30	41.94	4.47	47.04



chr15	57254425	57255393	969	713	23	31.22	4.59	50.53
chr15	57262628	57263680	1053	537	22	31.03	4.93	50.5
chr15	57680620	57681376	757	473	20	44.63	5.34	48.91
chr15	57754506	57755531	1026	575	23	36.4	6.16	47.16
chr15	57866370	57867266	897	284	20	35.33	6.16	47.42
chr15	58273256	58274021	766	487	17	30.13	5.75	51.65
chr15	58607311	58608454	1144	710	23	30.45	5.34	51.27
chr15	59528213	59529516	1304	454	30	30.42	4.67	51.33
chr15	60414168	60414841	674	409	17	32.43	4.57	49.56
chr15	60463613	60464423	811	374	19	36.17	4.52	46.97
chr15	60740959	60741885	927	653	21	34.3	5	47.82
chr15	62279848	62280523	676	389	19	43.53	4.72	48.03
chr15	62350792	62352739	1948	1521	50	31.79	3.67	49.79
chr15	63426063	63427231	1169	852	26	36.03	4.57	46.95
chr15	63470270	63470782	513	256	17	54.21	6.98	53.5
chr15	63693998	63695109	1112	777	26	44.12	4.93	47.92
chr15	63749134	63749963	830	540	20	35.4	5.71	47.55
chr15	64077822	64078763	942	499	21	36.98	4.93	46.95
chr15	64093074	64094474	1401	790	34	48.77	5.21	50.64
chr15	64221800	64222735	936	521	21	36.92	4.48	46.8
chr15	64278714	64280112	1399	787	36	54.23	5.77	54.21
chr15	64549347	64551062	1716	1082	37	40.7	5.77	46.52
chr15	64557274	64558595	1322	1072	32	46.89	4.33	47.64
chr15	64612938	64613911	974	272	26	44.95	4.37	48.72
chr15	65425113	65426250	1138	549	27	33.06	4.65	49.15
chr15	65482190	65483213	1024	755	23	34.13	4.72	48.12
chr15	65485268	65486090	823	428	18	31.11	4.11	50.68
chr15	65945386	65947031	1646	1077	31	36.63	6.16	46.96
chr15	66273813	66274590	778	504	20	33.29	4.79	48.87
chr15	66771624	66773179	1556	934	37	44.51	4.11	48.7
chr15	67043907	67044957	1051	464	21	31.13	4.93	50.63
chr15	67171157	67172110	954	669	21	36.29	4.93	46.94
chr15	67308672	67309434	763	222	17	30.3	4.11	51.54
chr15	68015505	68016880	1376	851	28	38.04	5.34	46.36
chr15	68688146	68689205	1060	785	24	38.65	4.93	46.11
chr15	69517339	69518231	893	374	23	44.57	5.75	48.88
chr15	69706710	69708285	1576	764	37	40.26	4.61	46.82
chr15	69732772	69733576	805	282	20	35.85	4.84	47.01
chr15	69902515	69903510	996	644	21	33.95	4.52	48.63
chr15	69912279	69913040	762	209	17	30.36	4.11	51.65
chr15	70189850	70190565	716	275	17	31.24	6.3	50.48
chr15	70676195	70676884	690	415	16	30.3	5.34	51.62
chr15	70968873	70970595	1723	1102	38	51.43	5.9	51.7
chr15	71001633	71002681	1049	486	22	31.23	5.75	50.5
chr15	71348765	71350274	1510	761	33	40.86	4.95	46.37
chr15	71739764	71740754	991	715	23	38.39	4.93	46.31
chr15	71829686	71830486	801	476	18	32.38	4.52	49.75
chr15	72315017	72316005	989	284	25	32	4.8	49.79
chr15	72846257	72847276	1020	263	22	30.48	5.12	51.28
chr15	72853860	72855183	1324	600	36	63.14	7.53	53.95
chr15	73419156	73420897	1742	421	37	43.88	4.19	47.85
chr15	74907130	74908756	1627	684	47	72.13	4.65	57.45

chr15	75879599	75881038	1440	391	33	36.64	4.11	47.03
chr15	75886639	75887967	1329	880	30	36.08	4.15	46.94
chr15	76304347	76305855	1509	286	34	33.81	4.61	48.87
chr15	76546814	76547934	1121	470	27	47.42	4.89	48.47
chr15	76756171	76757276	1106	552	23	32.25	4.93	50.03
chr15	76777413	76778162	750	286	19	40.24	4.93	46.68
chr15	76806055	76806973	919	542	25	47.22	6.47	47.86
chr15	76968785	76970235	1451	578	30	41.95	4.93	47.06
chr15	77160010	77160864	855	250	21	41.35	4.83	46.92
chr15	77489342	77490704	1363	762	31	44.78	4.57	48.99
chr15	77767420	77768184	765	486	20	44.03	5.34	48.12
chr15	78439252	78440535	1284	612	32	49.21	5.77	50.78
chr15	78460966	78461918	953	694	22	36.34	5.34	47.04
chr15	78795914	78796665	752	282	17	30.95	4.93	50.53
chr15	79204953	79205807	855	310	19	31.98	5.18	49.84
chr15	79298126	79299213	1088	804	26	45.57	5.75	50.15
chr15	80188991	80190394	1404	288	41	44.49	5.27	48.54
chr15	80228232	80229251	1020	426	21	32.69	6.57	49.36
chr15	80383805	80384627	823	438	25	31.37	4.74	50.23
chr15	80672154	80672967	814	530	20	40.56	6.16	46.89
chr15	80698521	80699217	697	382	17	34.4	5.75	47.76
chr15	81863499	81864388	890	616	21	40.16	6.16	46.66
chr15	81967212	81968839	1628	1029	39	64.94	4.93	54.1
chr15	82546445	82548604	2160	1699	53	54.13	4.05	53.08
chr15	82549294	82550359	1066	411	24	33.87	5.33	48.64
chr15	83164220	83165679	1460	638	37	64.85	7.25	54.05
chr15	83173974	83174930	957	612	20	32	4.11	49.74
chr15	83352314	83353295	982	286	22	34.71	6.16	47.7
chr15	83874145	83875040	896	534	20	35.39	6.16	47.63
chr15	83916918	83917736	819	571	20	36.1	4.19	47.01
chr15	84132788	84133926	1139	558	23	30.68	4.93	51
chr15	85111741	85112575	835	571	20	35.08	4.19	47.38
chr15	85223302	85224507	1206	669	24	30.2	5.24	51.75
chr15	85460364	85461262	899	508	21	39.59	6.57	46.6
chr15	85559853	85560658	806	278	18	32.08	5.34	49.79
chr15	85606856	85607767	912	486	20	34.47	5.34	47.74
chr15	85709305	85710217	913	522	19	30.31	4.11	51.54
chr15	86037191	86038452	1262	562	33	33.13	5.42	49.13
chr15	86357898	86358815	918	291	20	34.13	4.93	48.07
chr15	86439311	86440720	1410	965	112	578.7	36.97	16.67
chr15	87247926	87249020	1095	718	23	32.79	5.34	49.41
chr15	88482375	88484052	1678	1054	36	49.78	4.52	52.1
chr15	88529595	88530537	943	287	20	32.75	4.11	49.37
chr15	88579193	88580499	1307	695	28	41.5	6.57	47.14
chr15	89181528	89183856	2329	1700	47	35.25	5.65	47.29
chr15	89867896	89869036	1141	416	30	46.24	8.56	48.77
chr15	91509366	91510286	921	251	20	33.96	5.75	48.64
chr15	91814854	91815986	1133	658	26	31.59	4.79	50.03
chr15	92255563	92256345	783	270	18	33.46	5.75	48.67
chr15	92286334	92287094	761	500	17	30.42	4.52	51.28
chr15	93203708	93204741	1034	771	21	31.59	4.48	50
chr15	93339628	93341218	1591	1289	42	75.07	7.39	58.44

chr15	93469637	93470491	855	287	23	32.18	4.12	49.95
chr15	93492541	93493796	1256	614	30	46.94	6.09	47.66
chr15	95022178	95022956	779	496	19	38.24	5.75	46.29
chr15	95361141	95361948	808	354	19	36.36	5.34	47.14
chr15	95785791	95786656	866	550	19	32.88	4.52	49.29
chr15	96142384	96143235	852	274	23	47.47	4.93	48.55
chr15	96396819	96397793	975	343	21	31.06	5.71	50.75
chr15	96418384	96419222	839	252	25	58.73	5.75	52.85
chr15	97142061	97142823	763	514	18	34.7	4.11	47.79
chr15	97543322	97544607	1286	559	25	31.25	6.16	50.49
chr15	97675675	97676475	801	277	19	36.8	4.93	46.76
chr15	97788443	97789196	754	292	21	45.36	5.71	49.46
chr15	98553755	98554549	795	516	18	32.73	6.57	49.31
chr15	98853354	98854358	1005	378	24	41.88	6.57	47
chr15	99111641	99112603	963	269	22	35.77	4.93	47.11
chr15	99869707	99870687	981	663	24	43.37	5.34	47.86
chr15	100114114	100115289	1176	652	29	45.27	4.79	49.14
chr15	100822152	100823515	1364	273	32	54.93	4.93	53.72
chr15	101025327	101026066	740	467	17	31.67	4.93	49.82
chr15	101477209	101477891	683	260	17	35	5.3	47.62
chr15	102228068	102229374	1307	1019	31	54.05	5.34	52.68
chr15	102393243	102394032	790	415	18	33.03	4.52	49.16
chr15	102401649	102402487	839	240	20	38.9	5.75	46.29
chr15	102458243	102460431	2189	1519	52	33.58	3.98	48.71
chr16	219420	220697	1278	703	26	35.25	6.16	47.32
chr16	305659	306460	802	529	18	32.32	6.16	50.01
chr16	395885	397367	1483	520	32	34.57	3.42	47.72
chr16	411368	412262	895	635	20	35.45	5.34	47.41
chr16	1833134	1833800	667	388	17	32.91	4.57	49.31
chr16	2103921	2104993	1073	506	22	30.07	4.93	51.46
chr16	2480350	2481517	1168	471	30	50.8	5.21	52.01
chr16	2676628	2678065	1438	879	30	42.59	4.93	47.35
chr16	2961131	2962454	1324	847	35	36.1	4.85	46.96
chr16	3129583	3130448	866	254	21	41.73	5.34	47.26
chr16	3241245	3241859	615	279	15	30.53	5.75	51.26
chr16	3359657	3360489	833	426	18	30.55	5.34	51.23
chr16	4015629	4016727	1099	790	27	37.08	5.48	46.94
chr16	4200944	4201892	949	461	22	36.57	5.75	46.89
chr16	5601408	5602247	840	277	20	38.84	5.34	46.24
chr16	6923983	6924673	691	278	17	34.8	4.93	47.53
chr16	7143629	7144453	825	561	18	30.99	3.7	50.47
chr16	8472499	8473513	1015	610	23	32.76	6.09	49.4
chr16	10896046	10896925	880	264	20	31.27	4.09	50.48
chr16	11387408	11388260	853	398	20	31.75	5.1	49.81
chr16	11776350	11777546	1197	662	29	41.02	5.65	46.29
chr16	12327519	12328162	644	259	17	37.78	5.3	46.67
chr16	12688042	12689072	1031	673	21	32.13	4.93	49.78
chr16	12880660	12881570	911	513	19	30.42	5.75	51.31
chr16	13629812	13630886	1075	764	23	33.8	4.93	48.84
chr16	13740162	13740835	674	350	16	31.3	5.34	50.33
chr16	14257985	14258880	896	610	19	31.21	4.93	50.51
chr16	15867344	15868199	856	448	20	33.79	4.57	48.75

chr16	15973389	15974219	831	562	19	31.16	3.81	50.6
chr16	16121182	16122060	879	286	19	32.14	4.52	49.88
chr16	16154752	16155578	827	469	18	30.88	5.75	50.73
chr16	16324500	16325202	703	279	18	38.74	5.75	46.01
chr16	18307323	18308498	1176	590	30	58.06	5.75	53.31
chr16	18807324	18808122	799	563	25	31.76	3.35	49.85
chr16	20763885	20764750	866	581	23	41.81	5.71	46.95
chr16	20911513	20913773	2261	398	56	30.25	3.42	51.7
chr16	21108576	21109469	894	681	20	32.72	4.28	49.38
chr16	21262440	21263019	580	290	16	37.66	6.57	46.06
chr16	21400021	21401381	1361	590	33	35.19	4.44	47.17
chr16	21633985	21634747	763	197	17	30.3	4.11	51.54
chr16	21849431	21850610	1180	577	27	36.49	4.01	47.08
chr16	22410439	22411292	854	593	20	37.94	5.34	46.46
chr16	23056380	23057057	678	280	17	35.69	4.52	47.24
chr16	23495424	23496371	948	331	21	36.63	6.98	46.89
chr16	25463682	25464874	1193	728	28	34.86	4.75	47.64
chr16	25514649	25515308	660	391	16	32.21	6.16	49.94
chr16	26159053	26160122	1070	531	21	30.21	4.52	51.72
chr16	26879920	26880650	731	488	19	37.58	5.33	45.92
chr16	26910983	26911958	976	442	20	31.01	5.75	50.49
chr16	26916747	26917444	698	281	17	34.34	6.57	47.84
chr16	28267039	28267729	691	280	16	30.24	5.34	51.75
chr16	28935778	28937206	1429	756	38	39.92	5.99	46.68
chr16	29401862	29404562	2701	1442	66	53.15	4.85	51.76
chr16	29652497	29653775	1279	524	27	39.02	6.98	46.15
chr16	29937360	29938520	1161	611	24	32.28	6.04	50.08
chr16	30405786	30406798	1013	279	23	32.27	4.89	50.09
chr16	30725965	30726873	909	493	19	30.52	5.34	51.32
chr16	31671724	31672755	1032	276	23	36.07	4.52	46.98
chr16	32033214	32033961	748	271	19	40.38	5.34	46.8
chr16	32247522	32248444	923	609	21	38.11	4.93	46.34
chr16	32336413	32338051	1639	596	37	55.83	4.93	53.26
chr16	32804265	32805662	1398	510	31	40.48	4.05	46.99
chr16	33561191	33562353	1163	736	24	33.27	6.98	48.95
chr16	34711100	34711975	876	593	20	36.58	5.75	46.91
chr16	35001089	35002109	1021	448	22	32.64	6.16	49.3
chr16	46680784	46681590	807	474	21	41.39	5.33	46.95
chr16	46884430	46885430	1001	621	25	35.23	5.82	47.24
chr16	46942661	46944363	1703	1458	38	35.96	3.74	46.99
chr16	47111274	47112136	863	263	21	41.93	5.75	46.96
chr16	47226988	47227805	818	276	20	33.35	4.69	48.68
chr16	47308121	47309873	1753	560	42	35.37	3.42	47.58
chr16	47393576	47394593	1018	426	22	32.8	5.34	49.43
chr16	47398840	47400342	1503	1234	31	43.18	4.52	47.49
chr16	47865908	47867444	1537	1032	30	37.88	4.52	46.66
chr16	48865572	48866200	629	288	16	34.32	6.16	47.79
chr16	49698647	49699339	693	437	17	34.67	4.52	47.75
chr16	50315607	50316453	847	524	20	30.03	4.19	51.48
chr16	50805524	50806242	719	453	20	45.14	5.51	48.84
chr16	51261601	51262665	1065	587	21	30.45	4.52	51.29
chr16	51613069	51613815	747	510	18	32.06	4.57	49.81

chr16	51945333	51946472	1140	505	24	34.4	6.16	47.75
chr16	52286095	52286864	770	228	19	38.85	4.11	46.21
chr16	52979750	52980365	616	276	15	30.16	5.3	51.68
chr16	53244973	53247776	2804	1276	73	56.46	4.55	53.57
chr16	53621030	53622530	1501	291	31	43.28	6.16	47.89
chr16	53668097	53669612	1516	585	35	38.12	5.37	46.27
chr16	53958421	53959248	828	260	20	39.62	5.75	46.59
chr16	54100155	54101143	989	245	22	34.33	4.52	47.78
chr16	54138131	54139203	1073	612	25	42.13	5.75	46.81
chr16	54258737	54259327	591	323	15	32.16	5.34	49.92
chr16	55442498	55443330	833	372	18	30.55	4.93	51.23
chr16	56032689	56034125	1437	818	28	35.22	5.75	47.19
chr16	57219053	57221726	2674	2279	64	30.2	3.13	51.75
chr16	57225672	57226693	1022	383	23	30.63	4.05	51.18
chr16	58249873	58250643	771	527	18	34.2	4.93	47.92
chr16	58305127	58306013	887	602	20	35.92	5.34	47.03
chr16	58848185	58849986	1802	1318	40	59.08	6.57	52.66
chr16	59540866	59541735	870	618	20	36.95	4.52	46.89
chr16	59614006	59615732	1727	549	35	43.65	5.75	47.94
chr16	59678103	59678861	759	275	18	34.95	6.98	47.68
chr16	59994333	59995090	758	497	17	30.59	5.34	51.24
chr16	60130935	60131880	946	337	21	36.75	4.93	46.92
chr16	60285346	60286240	895	613	20	35.45	4.93	47.41
chr16	60657342	60658243	902	664	19	30.89	4.93	50.73
chr16	61578338	61579234	897	391	20	35.33	4.93	47.42
chr16	61745316	61746153	838	263	19	34.14	4.89	48.06
chr16	62384862	62385616	755	284	17	30.77	4.52	50.95
chr16	62714623	62715501	879	598	19	32.14	4.52	49.88
chr16	62834179	62835017	839	568	18	30.22	5.34	51.69
chr16	63112064	63113990	1927	1378	34	32.18	5.75	49.96
chr16	63250136	63251075	940	503	21	37.1	5.34	46.88
chr16	63386657	63387525	869	205	19	32.71	4.11	49.41
chr16	63387804	63388692	889	477	19	31.59	4.93	49.94
chr16	63616243	63617196	954	674	20	32.16	4.52	49.86
chr16	63617454	63618257	804	529	21	46.08	6.57	49.26
chr16	63779600	63780611	1012	450	24	31.45	4.5	49.99
chr16	63954977	63955562	586	287	20	56.62	7	53.37
chr16	64083303	64084419	1117	543	25	30.66	5.3	51.04
chr16	64220741	64222631	1891	690	44	55.04	5.52	53.44
chr16	64244972	64247313	2342	1054	51	37.04	4.55	47.03
chr16	64412789	64413524	736	527	18	31.22	5.16	50.53
chr16	64417050	64418736	1687	850	44	49.75	5.6	51.91
chr16	64497607	64498700	1094	658	23	30.56	6.3	51.27
chr16	64637038	64637982	945	290	20	32.64	4.11	49.32
chr16	64758172	64759214	1043	650	21	31.53	4.11	49.89
chr16	65109691	65110535	845	603	19	34.09	4.52	48.17
chr16	65163411	65164058	648	359	18	42.92	4.93	47.44
chr16	66388393	66389512	1120	581	26	43.64	6.16	47.88
chr16	66532520	66533354	835	553	18	30.44	4.52	51.32
chr16	66762241	66763077	837	256	18	30.33	4.11	51.59
chr16	66920405	66921234	830	310	19	34.99	4.11	47.59
chr16	67061995	67063910	1916	380	42	33.03	3.64	49.15

chr16	67478904	67479800	897	530	19	31.16	5.34	50.56
chr16	67618886	67620580	1695	582	35	45.15	4.52	48.8
chr16	67627226	67628783	1558	1353	32	36.2	5.16	46.92
chr16	67719042	67720767	1726	1028	35	33.07	3.92	49.19
chr16	67799145	67800144	1000	449	21	33.74	5.75	48.62
chr16	68183987	68185543	1557	1107	31	31.56	4.33	49.94
chr16	68201001	68201587	587	286	17	38.92	6.09	46.24
chr16	68301597	68303002	1406	1044	31	36.35	4.89	47.12
chr16	68370690	68371553	864	277	19	32.99	4.93	49.23
chr16	68799332	68800184	853	567	21	42.6	5.75	47.33
chr16	68845068	68845929	862	599	20	37.44	5.34	46.3
chr16	69051017	69052107	1091	522	23	32.99	5.75	49.23
chr16	69232344	69234583	2240	564	46	43.4	5.59	47.83
chr16	69623572	69624625	1054	585	24	32.66	7	49.43
chr16	69898321	69899321	1001	542	21	33.69	5.34	48.59
chr16	69902987	69904134	1148	641	25	33.37	5.33	48.69
chr16	70124947	70125837	891	273	22	40.1	5.75	46.56
chr16	71084955	71087692	2738	943	77	57.53	4.72	53.54
chr16	71117344	71120782	3439	2958	89	39.27	3.17	46.43
chr16	71345339	71346642	1304	579	25	30.47	6.16	51.25
chr16	71533948	71534845	898	624	19	31.11	4.11	50.64
chr16	71561860	71562762	903	265	21	39.34	4.52	46.61
chr16	71716287	71717593	1307	665	25	30.34	8.22	51.6
chr16	71777817	71778622	806	457	20	31.49	5.14	49.93
chr16	72389172	72390284	1113	481	24	35.78	5.34	47.17
chr16	72799686	72800575	890	553	19	31.54	6.57	49.9
chr16	73851319	73852005	687	314	16	30.49	5.75	51.31
chr16	73989550	73990572	1023	399	22	32.54	6.57	49.37
chr16	74470979	74472097	1119	588	24	35.47	4.93	47.43
chr16	74570440	74571494	1055	262	29	41.06	5.29	46.42
chr16	74639466	74641256	1791	1322	39	37.19	5.65	46.85
chr16	75038866	75039878	1013	631	23	37.13	5.34	46.91
chr16	75860406	75861327	922	284	22	30.08	4.59	51.57
chr16	75862597	75863947	1351	482	33	41.3	6.16	46.94
chr16	76053973	76054872	900	272	19	31	4.11	50.47
chr16	76251760	76252788	1029	719	21	32.23	6.16	50.02
chr16	76447943	76449296	1354	692	28	31.43	5.1	50.03
chr16	76479491	76480466	976	457	20	31.01	4.93	50.49
chr16	76960743	76961726	984	362	22	34.6	6.98	47.68
chr16	77022450	77023444	995	516	22	34.01	5.34	48.54
chr16	77091320	77092070	751	284	18	35.47	5.34	47.45
chr16	77135651	77136442	792	501	18	32.91	4.93	49.22
chr16	78096852	78097751	900	433	20	31.24	4.95	50.47
chr16	78321078	78322021	944	590	21	36.86	6.16	46.73
chr16	78400082	78400763	682	290	17	35.42	5.75	47.51
chr16	79010632	79011851	1220	519	25	34.29	6.16	47.84
chr16	79281980	79282780	801	534	18	32.38	3.7	49.75
chr16	80461856	80462547	692	374	16	30.18	4.52	51.67
chr16	81415783	81416631	849	255	20	38.26	4.93	46.3
chr16	81933855	81934817	963	531	21	35.77	5.75	47.11
chr16	81938653	81939836	1184	507	32	44.07	5.92	48.08
chr16	82013981	82014952	972	681	24	43.48	5.3	48.01

chr16	82156214	82157054	841	553	20	33.57	4.47	48.63
chr16	82159148	82160145	998	559	23	37.98	4.93	46.41
chr16	82235369	82236062	694	417	16	30.06	5.75	51.46
chr16	82703953	82704868	916	588	21	38.54	6.16	46.22
chr16	82865893	82866749	857	399	19	33.39	5.75	48.72
chr16	83550031	83550853	823	330	20	30.45	4.45	51.31
chr16	83639064	83640476	1413	498	33	52.02	4.93	51.04
chr16	83650533	83651156	624	279	16	34.67	5.75	47.77
chr16	83727168	83727886	719	246	19	33.08	4.11	49.2
chr16	84823871	84824821	951	688	22	36.46	5.75	47.14
chr16	85177317	85178212	896	472	22	39.78	6.16	46.6
chr16	85402306	85403131	826	339	23	49.41	6.16	51.61
chr16	87498583	87499589	1007	568	23	37.47	5.75	46.23
chr16	88921204	88922038	835	287	19	34.69	5.34	47.81
chr16	89315668	89316544	877	510	19	32.26	4.93	49.99
chr16	90022277	90023811	1535	1258	37	47.61	4.21	49.12
chr17	958758	959525	768	238	17	30.01	4.93	51.49
chr17	1358858	1360400	1543	847	41	36.39	3.42	47.15
chr17	1989051	1990214	1164	677	24	32.8	5.3	49.46
chr17	2140451	2142015	1565	958	36	47.35	3.72	48.35
chr17	2169827	2171213	1387	605	29	36.1	6.85	47
chr17	2404137	2404973	837	253	19	34.57	4.93	47.74
chr17	2502078	2503260	1183	558	26	33.97	5.96	48.62
chr17	2505922	2507041	1120	754	24	31.73	5	49.74
chr17	2845023	2846638	1616	258	35	49.06	5.75	50.55
chr17	3321610	3323058	1449	962	32	49.98	4.52	51.58
chr17	4167059	4168584	1526	663	46	73.24	6.53	57.65
chr17	4323596	4325233	1638	960	41	73.22	5.75	56.98
chr17	4829673	4830496	824	278	19	35.36	5.75	47.47
chr17	4841188	4842827	1640	271	31	30.66	3.14	51.05
chr17	4883137	4883959	823	323	19	32.17	5	49.92
chr17	4890999	4892361	1363	631	30	33.72	3.42	48.61
chr17	4961146	4962010	865	470	20	37.26	4.52	46.48
chr17	5490674	5491951	1278	626	26	35.25	5.34	47.32
chr17	6198681	6199513	833	267	19	34.81	5.34	47.51
chr17	6423053	6424007	955	377	21	32.14	4.95	49.83
chr17	6907858	6908852	995	283	22	34.01	4.52	48.54
chr17	7005967	7007072	1106	397	24	36.15	4.11	47
chr17	7155025	7156594	1570	551	42	31.83	4.65	49.77
chr17	7246181	7246905	725	451	17	32.59	5.34	49.4
chr17	7877294	7878098	805	357	18	32.14	5.34	49.83
chr17	8131694	8132548	855	573	19	30.33	5	51.65
chr17	8241136	8241831	696	264	19	34.7	4.79	47.74
chr17	8338589	8340564	1976	1302	45	38.33	4.05	46.37
chr17	8457197	8458397	1201	652	25	35.21	4.93	47.22
chr17	8545145	8545990	846	408	20	38.45	6.16	46.34
chr17	9477821	9478719	899	332	19	31.05	4.93	50.69
chr17	10009449	10010367	919	421	22	30.25	4.94	51.7
chr17	10038254	10039379	1126	462	24	35.11	4.93	47.42
chr17	10090579	10091402	824	459	18	31.05	6.16	50.62
chr17	11654139	11655003	865	575	20	37.26	5.34	46.48
chr17	11942933	11943905	973	686	20	31.17	4.11	50.55

chr17	12022065	12023016	952	665	20	32.27	4.93	50.07
chr17	12571088	12572370	1283	741	25	31.38	5.34	50.21
chr17	12914626	12915374	749	512	18	35.6	5.34	47.18
chr17	13127205	13128490	1286	684	28	42.61	6.98	47.35
chr17	13647489	13648249	761	210	17	30.42	4.11	51.28
chr17	14476594	14477297	704	283	17	33.94	4.93	48.68
chr17	15429378	15430592	1215	650	27	42.41	6.16	47.11
chr17	15629940	15630609	670	414	18	32.22	5.14	49.99
chr17	16118037	16119860	1824	423	46	43	5.56	47.43
chr17	16798041	16798985	945	657	20	32.64	5.34	49.32
chr17	17286081	17286959	879	659	19	32.14	4.11	49.88
chr17	17632326	17634126	1801	517	39	34.48	4.85	47.73
chr17	18046715	18047693	979	698	20	30.86	4.11	50.91
chr17	18595518	18596229	712	291	17	33.42	5.75	48.71
chr17	18693290	18694614	1325	693	30	35.6	5.82	47.22
chr17	18694920	18696390	1471	733	34	41.56	4.28	47.19
chr17	18735155	18736927	1773	1422	37	42.43	4.19	47.28
chr17	19895743	19897080	1338	765	34	45.77	4.79	50
chr17	20775504	20776750	1247	596	35	38.74	5.57	46.16
chr17	21029887	21030949	1063	568	24	34.03	4.19	48.6
chr17	21224925	21229837	4913	4202	149	49.99	3.48	51.71
chr17	21307202	21310551	3350	1008	86	33.46	4.71	48.57
chr17	21506653	21511771	5119	3039	151	71.54	4.38	53.33
chr17	21760213	21760792	580	290	15	30.44	5.84	51.29
chr17	21970902	21971904	1003	576	22	33.58	5.75	48.66
chr17	22091117	22092584	1468	1001	32	48.93	4.93	50.27
chr17	25487627	25489160	1534	1059	35	31.78	3.42	49.86
chr17	25490536	25492438	1903	1208	40	40.26	5.3	46.73
chr17	25511518	25512434	917	206	20	34.18	4.11	47.96
chr17	25680306	25681889	1584	400	30	39.35	4.11	46.77
chr17	25955740	25956367	628	290	16	31.05	5.71	50.76
chr17	26978370	26979945	1576	1313	34	43.84	4.33	47.92
chr17	27109816	27110467	652	265	17	31.02	4.28	50.48
chr17	27814346	27815654	1309	537	28	41.39	5.75	46.99
chr17	27837241	27838089	849	259	20	37.22	5.24	46.82
chr17	28340733	28342368	1636	432	32	32.81	3.68	49.41
chr17	28344862	28345605	744	331	21	34.74	5.29	47.65
chr17	28725006	28725941	936	389	23	41.74	5.34	47.25
chr17	28755204	28756733	1530	969	35	35.99	4.28	47.15
chr17	28831637	28832992	1356	928	33	34.17	4.36	48
chr17	29265456	29266630	1175	320	24	32.69	4.93	49.39
chr17	29336757	29337903	1147	600	32	54.22	5.48	53.9
chr17	29557768	29560391	2624	417	60	30.71	3.55	50.99
chr17	29654278	29655431	1154	436	37	31.21	4.49	50.54
chr17	29851786	29853390	1605	453	37	41.96	4.11	47.1
chr17	30233429	30234918	1490	804	32	34.25	3.42	47.91
chr17	30333911	30336059	2149	558	43	49.62	6.57	51.29
chr17	30372331	30372998	668	416	16	31.69	4.93	49.8
chr17	30535024	30536610	1587	1306	39	34.67	4.57	47.77
chr17	30710395	30711393	999	496	23	33.63	5.33	48.75
chr17	30891938	30892875	938	520	22	37.22	6.16	46.81
chr17	31149075	31150378	1304	606	273	110.23	7.51	23.81



chr17	32257528	32258923	1396	843	27	33.49	6.16	48.7
chr17	32361245	32362724	1480	886	32	48.29	5.34	49.41
chr17	32364754	32365357	604	275	16	32.74	5.71	49.37
chr17	32681280	32682232	953	524	21	36.34	4.93	47.04
chr17	33249189	33250055	867	540	20	37.13	5.75	46.94
chr17	33613289	33614409	1121	692	24	35.37	4.93	47.53
chr17	33873001	33874181	1181	653	24	32.41	5.75	49.64
chr17	33930248	33931143	896	273	20	35.39	4.93	47.63
chr17	34956523	34958246	1724	1347	42	41.94	5.15	46.97
chr17	34975607	34976446	840	569	22	43.5	4.93	48.04
chr17	35329633	35331518	1886	1520	41	32.89	4.17	49.35
chr17	35405577	35406452	876	348	20	36.19	6.12	46.89
chr17	35523492	35525594	2103	1537	50	51.34	5.49	51.48
chr17	35611624	35612518	895	276	21	39.84	4.93	46.65
chr17	35795837	35797172	1336	606	30	48.05	5.34	49.28
chr17	35907482	35908959	1478	798	37	65.53	6.98	53.76
chr17	36021333	36022100	768	276	18	32.9	5.18	49.34
chr17	37007883	37008610	728	447	26	45.9	5.25	49.69
chr17	37349861	37350554	694	305	17	34.6	4.52	47.73
chr17	37366179	37367448	1270	721	25	31.96	6.98	49.79
chr17	37657223	37658526	1304	797	27	37.77	4.93	46.61
chr17	37764984	37766270	1287	548	27	38.13	4.89	46.29
chr17	38347913	38349182	1270	598	28	42.96	4.89	47.44
chr17	38407900	38408512	613	325	18	39.61	5.83	46.56
chr17	38487109	38487735	627	351	18	34.44	4.7	47.75
chr17	38567044	38568629	1586	338	36	39.52	4.45	46.95
chr17	38862018	38862921	904	276	19	30.79	4.93	50.91
chr17	40476358	40477510	1153	465	35	46.87	5.99	47.36
chr17	40591332	40593103	1772	1232	38	51.37	6.07	51.62
chr17	40811805	40814519	2715	587	55	52.36	5.1	50.77
chr17	41242931	41247066	4136	1403	130	82.82	3.43	47.92
chr17	41703767	41704682	916	634	20	34.24	6.16	47.9
chr17	42085481	42086515	1035	451	29	42.4	6.85	47.12
chr17	42440263	42441510	1248	567	25	32.97	6.57	49.29
chr17	42535964	42538122	2159	1421	46	55.81	5.35	53.36
chr17	42579298	42581676	2379	644	58	30.02	5.38	51.48
chr17	43113878	43114622	745	462	23	51.11	7.99	51.78
chr17	43324182	43324858	677	389	21	39.96	5.92	46.78
chr17	43428851	43429745	895	428	23	44.44	6.57	48.48
chr17	43464649	43465578	930	616	22	37.69	6.16	46.43
chr17	43485877	43486929	1053	452	21	30.04	5.64	51.46
chr17	44106471	44107650	1180	841	26	40.24	4.52	46.69
chr17	45175540	45176808	1269	495	28	30.41	4.03	51.39
chr17	45184519	45185405	887	254	21	40.35	4.52	46.88
chr17	46381186	46382492	1307	647	28	41.5	7.8	47.14
chr17	46382713	46383805	1093	261	25	30.17	4.45	51.66
chr17	46743112	46744777	1666	1187	31	35.79	4.93	47.11
chr17	47730478	47731475	998	667	24	37.04	4.52	46.97
chr17	48980254	48981585	1332	1046	33	56.92	6.57	52.71
chr17	49084997	49086492	1496	818	33	32.61	4.7	49.39
chr17	49111502	49113036	1535	1244	33	35.75	4.33	47.06
chr17	49251390	49252229	840	558	19	34.39	4.93	47.73

chr17	49374728	49375481	754	538	19	30.77	4.11	50.95
chr17	49581309	49582740	1432	692	36	63.99	4.93	54.04
chr17	49850202	49850874	673	394	16	31.37	5.75	50.2
chr17	50118282	50118958	677	394	16	31.11	5.75	50.68
chr17	50430255	50430984	730	362	17	32.28	6.16	50.02
chr17	50449611	50450855	1245	680	26	36.86	4.93	46.77
chr17	50714956	50716260	1305	589	26	33.99	4.93	48.54
chr17	51694735	51695818	1084	369	25	41.49	5.75	47.06
chr17	52124984	52125847	864	406	19	32.99	4.93	49.23
chr17	52246339	52247703	1365	545	30	46.43	5.75	48.39
chr17	52993709	52994763	1055	777	24	38.93	4.93	46.25
chr17	53107463	53109073	1611	340	30	32.88	4.19	49.31
chr17	53464089	53465253	1165	591	24	32.75	5.3	49.4
chr17	53529985	53530811	827	249	18	30.88	4.52	50.73
chr17	53929594	53930586	993	267	28	48.03	6.16	49.13
chr17	53983792	53984899	1108	649	23	32.15	4.93	49.87
chr17	54193791	54194944	1154	671	25	37.61	6.16	45.75
chr17	54592754	54593701	948	259	21	36.63	4.52	46.89
chr17	54906847	54908048	1202	499	26	39.07	6.16	46.27
chr17	54911341	54912154	814	263	20	36.42	4.19	47.17
chr17	55286770	55287617	848	626	19	33.92	4.52	48.7
chr17	55779049	55779866	818	265	18	31.39	4.93	50.18
chr17	56065239	56066678	1440	404	36	34.93	4.1	47.6
chr17	56067458	56069095	1638	827	41	39.49	4.64	46.96
chr17	56289422	56290354	933	354	24	37.24	4.94	46.68
chr17	56335800	56337001	1202	600	27	34.02	4.64	48.57
chr17	56609002	56610060	1059	362	23	34.63	5.75	47.79
chr17	56771682	56773014	1333	874	33	36.66	5.71	47
chr17	56853443	56854400	958	669	21	36.06	4.52	46.97
chr17	56915484	56916712	1229	617	26	37.67	4.93	46.37
chr17	56933941	56934858	918	280	19	30.05	4.52	51.47
chr17	58012690	58014150	1461	735	32	41.68	7.07	47.2
chr17	58154537	58156293	1757	1349	42	35.18	4.28	47.11
chr17	58377150	58378229	1080	384	31	47.23	5.29	47.99
chr17	58530904	58533229	2326	1705	49	37.19	2.85	46.87
chr17	58544863	58546028	1166	289	30	43.18	4.03	47.44
chr17	58676927	58678564	1638	409	48	42.24	5.63	46.99
chr17	58901686	58902621	936	449	21	37.33	5.75	46.7
chr17	59664713	59665853	1141	600	28	41.86	4.69	47.12
chr17	59727809	59728963	1155	455	25	37.56	4.93	45.98
chr17	59958465	59960023	1559	667	40	55.5	5.82	53.9
chr17	60020555	60021440	886	496	24	45.67	6.93	49.89
chr17	60051437	60053034	1598	1024	33	35.18	5.21	47.1
chr17	61313699	61314881	1183	489	26	40.08	6.16	46.6
chr17	61580035	61581019	985	290	21	34.55	4.11	47.78
chr17	61722273	61723403	1131	667	24	32.45	5.51	49.54
chr17	61784723	61785870	1148	490	26	35.13	4.42	47.35
chr17	61999880	62002636	2757	2040	65	45.44	4.01	49.67
chr17	62093065	62093915	851	350	20	38.13	5.75	46.27
chr17	62104490	62105320	831	471	25	59.42	6.98	54.79
chr17	62486154	62487706	1553	1013	34	31.16	3.59	50.56
chr17	62644107	62645004	898	622	21	39.65	6.57	46.42

chr17	64135997	64137146	1150	629	26	31.31	4.15	50.32
chr17	65359374	65360257	884	288	23	35.69	4.89	47.2
chr17	65478002	65478903	902	445	20	35.04	5.34	47.43
chr17	65696677	65697548	872	241	20	36.83	4.11	46.86
chr17	65726285	65727289	1005	519	24	41.88	5.75	47
chr17	65729323	65731401	2079	1245	51	78.23	5.84	57.14
chr17	65838583	65839458	876	276	24	36.85	5.6	46.8
chr17	66118208	66118895	688	270	16	30.42	4.93	51.34
chr17	66243300	66244882	1583	717	41	35.57	5.35	47.16
chr17	66296171	66297173	1003	275	24	31.39	4.79	50.2
chr17	66303583	66304735	1153	670	23	30.03	6.98	51.47
chr17	66719433	66720240	808	563	18	31.97	4.52	49.79
chr17	67379627	67381268	1642	247	36	51.64	4.11	51.45
chr17	67959178	67960055	878	638	23	45.61	4.93	50.11
chr17	68587833	68588604	772	385	18	34.13	4.52	48.1
chr17	69030978	69031835	858	408	20	37.69	6.16	46.5
chr17	69505647	69506287	641	291	16	33.48	6.16	48.68
chr17	69826048	69827422	1375	746	27	34.42	6.57	47.82
chr17	69902557	69903467	911	475	23	43.36	6.16	47.84
chr17	69985613	69986473	861	283	22	42.06	5.75	46.99
chr17	72413534	72414362	829	270	18	30.77	6.16	50.95
chr17	73268358	73269488	1131	533	23	31.05	5.75	50.68
chr17	74435461	74436475	1015	435	22	31.94	5.64	49.77
chr17	75033626	75034492	867	588	19	32.82	5.34	49.42
chr17	75137505	75139566	2062	847	52	48.34	4.35	49.35
chr17	75327231	75328575	1345	566	30	47.54	6.98	48.77
chr17	75999730	76001351	1622	1330	34	48.75	4.93	50.58
chr17	76053545	76054687	1143	525	23	30.49	5.75	51.27
chr17	78263302	78264137	836	254	18	30.38	4.52	51.65
chr17	78785987	78786986	1000	614	21	33.74	4.93	48.62
chr17	78806544	78807139	596	307	18	47.35	6.57	48.39
chr17	80595050	80596001	952	609	20	32.27	4.52	50.07
chr18	9856	10782	927	289	34	62.3	9.52	54.94
chr18	73123	73905	783	530	18	33.46	6.57	48.67
chr18	428686	429681	996	400	20	30.01	4.93	51.45
chr18	1181087	1182269	1183	704	29	52.97	5.34	50.57
chr18	1455091	1456406	1316	573	27	37.18	5.34	46.88
chr18	2101721	2102622	902	694	19	30.53	4.08	51.26
chr18	2167726	2168545	820	577	18	31.28	4.11	50.36
chr18	2255749	2256526	778	492	22	37.5	6.16	46.01
chr18	2353650	2354538	889	282	22	32.51	4.64	49.39
chr18	2502996	2503856	861	575	19	33.16	4.52	49.11
chr18	2533943	2535595	1653	544	37	53.33	5.24	51.54
chr18	2889229	2890011	783	494	19	37.98	5.34	46.38
chr18	2949026	2951535	2510	1196	57	37.34	3.71	46.85
chr18	3957719	3959101	1383	789	29	41.51	5.34	47.23
chr18	4972934	4973882	949	636	20	32.43	6.57	49.57
chr18	5183144	5184047	904	410	22	39.28	5.75	46.47
chr18	5240060	5241479	1420	837	33	37.64	5.48	45.94
chr18	5462129	5463171	1043	476	21	31.53	6.16	49.89
chr18	5673869	5674743	875	563	21	41.13	6.98	46.39
chr18	5821108	5821771	664	411	16	31.95	4.93	49.78

chr18	6267203	6268076	874	376	22	41.2	5.75	46.62
chr18	6452788	6453378	591	291	16	37.12	5.75	46.92
chr18	6461630	6463116	1487	736	32	42.01	6.85	47.03
chr18	7915355	7915953	599	337	15	31.61	5.34	49.96
chr18	7958935	7959966	1032	785	22	32.08	4.52	49.81
chr18	9179612	9180432	821	366	22	35.11	4.5	47.4
chr18	9213118	9214331	1214	749	33	30.36	5.01	51.66
chr18	9563059	9563901	843	484	20	35.17	4.62	47.09
chr18	9617131	9618001	871	586	22	31.44	4.45	49.98
chr18	9913238	9914485	1248	800	33	33.89	6.28	48.61
chr18	9957254	9958955	1702	267	35	38.84	4.95	46.23
chr18	9965272	9965893	622	335	15	30.07	5.34	51.52
chr18	10027438	10028639	1202	585	24	31.43	6.16	50.02
chr18	10039587	10040684	1098	548	24	36.57	5.75	46.88
chr18	10536475	10537605	1131	615	23	30.03	5.24	51.47
chr18	10610194	10611007	814	565	20	40.56	4.93	46.89
chr18	10682234	10683118	885	264	19	31.81	5.34	49.78
chr18	10817452	10818190	739	247	17	31.73	4.93	49.74
chr18	10819800	10821209	1410	1075	36	49.11	4.79	50.77
chr18	11076003	11076828	826	434	18	30.94	4.52	50.56
chr18	11076941	11077776	836	240	18	30.38	3.7	51.65
chr18	11474104	11474939	836	557	18	30.38	5.34	51.65
chr18	11964088	11964895	808	194	18	31.97	4.11	49.79
chr18	11979762	11981316	1555	499	39	69.57	6.57	54.47
chr18	12038666	12039727	1062	661	22	30.6	5.75	51.21
chr18	12635289	12636105	817	278	18	31.45	5.34	50
chr18	13008140	13009565	1426	684	33	30.76	4.05	50.95
chr18	13136876	13137956	1081	455	24	37.49	4.52	46.03
chr18	13138514	13139323	810	269	18	31.85	4.52	49.8
chr18	13501457	13502321	865	462	21	41.79	5.75	47
chr18	13584882	13587229	2348	1178	52	32.29	3.65	50.07
chr18	14034278	14035264	987	458	20	30.46	4.93	51.3
chr18	14342849	14343751	903	532	21	39.34	5.75	46.61
chr18	14490012	14491204	1193	638	30	42.95	5.82	47.42
chr18	14719303	14720141	839	551	18	30.22	4.11	51.69
chr18	15351816	15352596	781	522	18	33.58	5.34	48.63
chr18	19170704	19171945	1242	952	30	49	4.64	50.65
chr18	19377311	19378555	1245	711	28	35.37	5.35	47.51
chr18	19445633	19446703	1071	553	23	34.01	6.16	48.53
chr18	19498978	19499717	740	333	17	31.67	4.93	49.82
chr18	20069556	20070635	1080	717	25	36.99	5.33	46.95
chr18	20805549	20807160	1612	614	36	38.26	3.77	46.34
chr18	22078061	22079096	1036	750	21	31.88	4.52	49.76
chr18	22262980	22263799	820	285	18	30.38	5.24	51.64
chr18	22274215	22275110	896	630	19	31.21	4.52	50.51
chr18	22780430	22781225	796	514	19	37.12	6.16	46.93
chr18	23206842	23207887	1046	424	21	31.38	6.16	50.17
chr18	23341603	23342459	857	568	19	33.39	4.93	48.72
chr18	23423288	23424079	792	422	18	30.19	5.42	51.69
chr18	23582468	23583664	1197	570	29	42.48	4.33	47.29
chr18	23625962	23626855	894	245	20	31.58	4.57	49.99
chr18	23654881	23656270	1390	773	34	33.13	5.41	49.19

chr18	23846894	23848130	1237	745	29	38.76	6.71	46.01
chr18	23995325	23996590	1266	667	26	31.92	6.16	49.84
chr18	24134074	24135070	997	657	21	33.9	4.52	48.58
chr18	25111345	25112475	1131	561	23	31.05	5.34	50.68
chr18	25900061	25900776	716	459	17	32.93	6.13	49.36
chr18	26244289	26245263	975	441	20	31.07	4.93	50.75
chr18	26374348	26375170	823	541	18	31.11	4.93	50.68
chr18	26602631	26604430	1800	447	34	37.01	4.93	46.96
chr18	27086389	27088308	1920	503	35	45.66	5.34	49.78
chr18	27198657	27199586	930	443	20	33.46	4.11	48.63
chr18	27454239	27455311	1073	549	22	30.07	6.16	51.46
chr18	27521418	27523164	1747	1471	41	66.38	5.34	54.32
chr18	27885850	27886910	1061	262	24	38.59	5.34	46.11
chr18	28010557	28011816	1260	745	29	48.22	6.98	49.61
chr18	28357746	28358868	1123	660	25	34.66	5.71	47.75
chr18	28535505	28537430	1926	1430	44	64.46	5.34	54.97
chr18	28564753	28565994	1242	618	26	37.01	5.75	46.96
chr18	28567909	28569296	1388	696	28	37.47	5.34	46.24
chr18	28747421	28748162	742	280	17	30.17	4.78	51.66
chr18	28754891	28755878	988	470	26	35.17	5.71	47.1
chr18	28986561	28987571	1011	353	22	33.16	4.52	49.1
chr18	29101668	29103182	1515	953	31	42.59	5.34	47.33
chr18	29330012	29330691	680	271	17	35.55	5.75	47.21
chr18	29603336	29604366	1031	337	25	44.69	6.16	48.77
chr18	30071527	30072828	1302	582	27	37.86	6.16	46.75
chr18	30304406	30305685	1280	520	29	43.97	5.12	47.86
chr18	30523426	30524350	925	524	23	34.31	4.99	47.85
chr18	30597453	30598827	1375	714	34	53.07	6.16	51.32
chr18	30633681	30635429	1749	1342	33	35.75	5.34	47.07
chr18	30749784	30750631	848	257	21	38.57	6.09	46.15
chr18	30973051	30973959	909	540	20	34.64	4.11	47.61
chr18	31202952	31203926	975	510	25	48.36	6.57	49.1
chr18	31461875	31462861	987	387	29	61.21	5.71	55.43
chr18	31519786	31520714	929	280	22	31.86	4.42	49.75
chr18	31600752	31601714	963	514	21	30.01	3.68	51.48
chr18	31613721	31615370	1650	628	32	33.71	4.14	48.59
chr18	31950298	31951676	1379	360	32	54.02	5.75	52.85
chr18	32034714	32035805	1092	620	23	32.94	5.34	49.38
chr18	32118253	32119321	1069	472	21	30.26	4.93	51.61
chr18	32608861	32610592	1732	649	43	38.51	4.68	46.35
chr18	32678864	32680602	1739	596	34	39	4.89	46.14
chr18	33144442	33146148	1707	1334	46	55.66	4.67	53.76
chr18	34333092	34334377	1286	490	30	37.64	4.79	45.89
chr18	34372371	34373201	831	483	20	39.42	6.98	47.03
chr18	34466621	34467587	967	300	21	30.35	4.47	51.59
chr18	34619980	34621288	1309	532	30	36.43	4.45	47.17
chr18	34769184	34770200	1017	358	23	36.9	4.52	46.75
chr18	36072543	36073295	753	481	17	30.89	4.93	50.71
chr18	36587079	36587751	673	452	17	36.04	5.34	46.9
chr18	37151080	37152235	1156	518	25	37.5	5.34	45.98
chr18	37862763	37863505	743	503	17	31.49	4.52	49.89
chr18	38086548	38087341	794	259	19	37.25	5.34	46.46

chr18	38265543	38266726	1184	641	24	32.27	5.34	50.08
chr18	38292683	38293652	970	679	21	35.38	4.93	47.52
chr18	38361448	38362496	1049	645	22	31.23	5.34	50.5
chr18	38760393	38761457	1065	628	22	30.45	5.34	51.29
chr18	38772284	38773613	1330	647	27	36.51	5.34	46.98
chr18	38888501	38889210	710	421	17	33.55	4.11	48.54
chr18	38926650	38927492	843	399	25	58.39	7.8	54.07
chr18	38954426	38955748	1323	563	33	42.88	4.79	47.32
chr18	38960390	38962304	1915	716	40	35.61	4.36	47.34
chr18	38971325	38972734	1410	733	33	41.16	5.71	46.43
chr18	39018006	39018828	823	340	18	31.11	5.75	50.68
chr18	39332024	39332912	889	350	19	31.59	4.11	49.94
chr18	39341789	39342829	1041	373	22	31.63	5.75	49.91
chr18	39434218	39435094	877	666	19	32.26	4.11	49.99
chr18	39561078	39562354	1277	578	29	42.52	5	47.2
chr18	39564643	39566029	1387	906	33	53.54	4.93	52.11
chr18	39798193	39799226	1034	611	28	58.61	6.57	53.69
chr18	40378006	40379051	1046	581	21	31.38	4.52	50.17
chr18	40466232	40467429	1198	592	26	39.28	4.11	46.48
chr18	41200726	41201885	1160	542	31	64.01	6.16	54.31
chr18	41287793	41288679	887	598	19	31.7	4.93	49.74
chr18	41649212	41650277	1066	467	24	38.31	6.57	46.43
chr18	41661939	41663411	1473	287	32	48.66	4.93	50.21
chr18	41867423	41868331	909	280	20	34.64	5.34	47.61
chr18	41889952	41890893	942	221	21	36.98	4.52	46.95
chr18	43747448	43748400	953	277	21	36.34	5.75	47.04
chr18	43830421	43831710	1290	1000	29	30.27	4.52	51.69
chr18	44538005	44538801	797	507	23	51.69	5.75	51.23
chr18	44538840	44539656	817	281	19	35.79	5.34	47.14
chr18	44688846	44689825	980	745	25	30.95	3.74	50.52
chr18	45135562	45136737	1176	699	25	36.47	5.75	47.15
chr18	45385287	45387199	1913	1221	41	33.27	5.34	48.96
chr18	45411431	45412189	759	279	23	32.92	5.14	49.32
chr18	45462736	45464096	1361	756	34	37.19	4.98	46.85
chr18	46825711	46826616	906	339	21	38.07	5.64	46.39
chr18	48805443	48806424	982	558	21	34.71	6.57	47.7
chr18	49326383	49327138	756	523	17	30.71	4.11	51.03
chr18	49344899	49346076	1178	684	29	47.54	4.19	48.81
chr18	49787730	49788624	895	535	19	31.27	5.75	50.46
chr18	49820040	49820932	893	711	19	31.38	4.52	50.16
chr18	51059528	51060553	1026	649	22	32.38	5.34	49.71
chr18	51576756	51578180	1425	843	29	39.43	4.93	47.06
chr18	51969909	51971376	1468	643	34	38.64	4.45	46.09
chr18	52361547	52362485	939	265	21	37.16	4.93	46.85
chr18	52408545	52409414	870	593	20	36.95	4.52	46.89
chr18	52701257	52702356	1100	497	23	32.54	4.93	49.35
chr18	52892883	52893794	912	259	20	34.47	4.93	47.74
chr18	52900071	52901007	937	647	22	37.27	5.34	46.57
chr18	53587932	53588850	919	360	23	42.83	6.16	47.28
chr18	54167919	54169058	1140	703	24	30.15	4.95	51.64
chr18	54304928	54307262	2335	708	63	36.31	3.65	46.99
chr18	54449770	54451143	1374	611	31	30.16	3.74	51.64

chr18	54649697	54650459	763	276	17	30.3	4.93	51.54
chr18	54691166	54692569	1404	698	46	33.06	6.24	49.18
chr18	55326618	55327654	1037	558	23	35.8	6.57	47.11
chr18	55955813	55956565	753	286	17	30.89	4.93	50.71
chr18	56163964	56164808	845	228	19	34.09	4.11	48.17
chr18	56256189	56256914	726	475	18	37.14	6.16	46.9
chr18	56665096	56667050	1955	541	41	40.24	4.89	46.67
chr18	56783255	56784218	964	514	23	35.61	4.57	47.35
chr18	57927807	57928411	605	289	15	31.2	5.75	50.53
chr18	58023205	58024133	929	250	20	33.13	4.89	49.18
chr18	59144582	59145448	867	547	20	32.02	4.09	49.79
chr18	59609285	59610503	1219	636	26	33.49	5.33	48.69
chr18	59785573	59786298	726	332	17	32.53	4.93	49.39
chr18	59807510	59808221	712	275	18	37.14	5.64	46.93
chr18	59975261	59976050	790	457	19	30.99	3.97	50.48
chr18	60043205	60043632	428	214	15	52.18	5.41	51.29
chr18	60227373	60228859	1487	768	36	33.83	4.76	48.73
chr18	60695507	60696435	929	285	21	37.75	4.52	46.67
chr18	60743273	60744178	906	674	21	31.52	4.28	49.89
chr18	60982702	60985914	3213	1044	101	36.57	4.44	46.88
chr18	61128980	61131576	2597	2141	54	48.79	4.28	50.69
chr18	61133622	61134609	988	516	24	38.29	6.09	46.33
chr18	61411293	61413646	2354	233	54	39.34	4.13	46.59
chr18	61609161	61610746	1586	1021	33	32.76	4.28	49.4
chr18	61670832	61671969	1138	555	30	57.28	6.3	53.47
chr18	61682888	61685389	2502	1171	58	51.91	4.76	50.96
chr18	61834142	61835449	1308	576	31	33.4	4.67	48.71
chr18	61950498	61952785	2288	1791	52	41.48	5.12	47
chr18	62253324	62254326	1003	291	24	31.55	6.53	50
chr18	62381990	62384047	2058	862	56	75.32	4.65	60
chr18	62407492	62408751	1260	713	27	30.55	4.24	51.3
chr18	62408813	62410488	1676	265	32	35.18	3.57	47.11
chr18	62527132	62528392	1261	643	32	54.18	6.4	53.4
chr18	62566115	62567513	1399	702	35	33.94	5.56	48.67
chr18	62657088	62658890	1803	1455	36	30.06	3.42	51.47
chr18	62676031	62677044	1014	723	24	32.47	4.59	49.49
chr18	62713308	62714804	1497	549	36	30.32	4.28	51.57
chr18	62758726	62759869	1144	717	31	58.72	7.23	52.54
chr18	63119416	63120858	1443	896	32	35.79	4.41	47.12
chr18	63291372	63292350	979	480	21	33.22	5.97	49.14
chr18	63370015	63371210	1196	559	28	47.73	6.57	49.2
chr18	63373834	63374744	911	637	20	34.53	4.11	47.68
chr18	63425110	63425983	874	259	20	30.54	5.1	51.21
chr18	63499326	63500436	1111	690	33	60.36	6.42	55.23
chr18	63540512	63542190	1679	375	36	43.36	4.19	47.87
chr18	63551401	63552711	1311	884	37	59.65	6.51	55.44
chr18	63771232	63772695	1464	928	32	39.93	4.74	46.7
chr18	63959454	63960425	972	281	23	32.75	5.1	49.41
chr18	64051286	64053575	2290	972	49	33.89	3.64	48.59
chr18	64061460	64063117	1658	1088	40	47.03	4.65	47.48
chr18	64230014	64231584	1571	981	40	45.97	4.98	49.69
chr18	64243221	64244267	1047	484	25	31.48	4.7	49.92

chr18	64276636	64278057	1422	1166	34	45.85	5.46	50.12
chr18	64285608	64288298	2691	1907	59	55.5	4.79	53.78
chr18	64528310	64529810	1501	771	37	51.09	5.71	51.77
chr18	64732766	64733819	1054	603	28	37.35	4.36	46.83
chr18	64789826	64790679	854	289	24	30.21	4.28	51.73
chr18	64810427	64811994	1568	334	36	41.21	4.15	46.78
chr18	64825813	64826834	1022	586	23	36.2	6.52	46.93
chr18	64839637	64841724	2088	636	46	36.23	5.6	46.98
chr18	64860765	64862358	1594	801	36	35.42	4.57	47.52
chr18	65051248	65052783	1536	865	39	37.25	4.57	46.43
chr18	65063622	65065368	1747	1050	38	33.17	4.48	49.15
chr18	65203237	65204797	1561	850	41	50.08	5.6	51.92
chr18	65224940	65226517	1578	945	38	32.21	3.42	49.95
chr18	65399726	65401207	1482	647	32	33.93	4.75	48.69
chr18	65451329	65452743	1415	513	31	38.09	4.69	46.49
chr18	65529018	65530244	1227	548	33	41.37	5.92	46.95
chr18	65544580	65546857	2278	1639	55	32.85	4.94	49.33
chr18	65641573	65644364	2792	611	63	51.51	5.66	51.65
chr18	65944441	65945223	783	506	18	33.46	4.93	48.67
chr18	65979871	65980743	873	279	20	32.78	4.19	49.41
chr18	66037619	66038991	1373	742	27	34.05	4.89	48.5
chr18	66336970	66338462	1493	713	36	34.83	4.85	47.52
chr18	66388529	66391326	2798	277	69	30.71	3.27	51.02
chr18	66473181	66474437	1257	746	29	31.88	4.52	49.84
chr18	66578973	66580317	1345	607	32	37.36	6.14	46.79
chr18	67049558	67051124	1567	637	36	34.6	3.49	47.71
chr18	67100380	67101610	1231	685	27	30.13	4.11	51.64
chr18	67160899	67161880	982	281	26	45.12	4.42	48.88
chr18	67815481	67818306	2826	712	66	48.93	4.13	50.48
chr18	67942324	67943924	1601	1093	32	33.56	3.64	48.58
chr18	68004982	68005813	832	242	21	33.85	4.45	48.77
chr18	68137840	68139952	2113	1532	45	37.28	5.59	46.67
chr18	68391302	68392367	1066	524	27	41.73	5.35	47.28
chr18	68489578	68492091	2514	1053	50	31.42	3.67	50.14
chr18	68572477	68574175	1699	649	43	39.43	4.35	47.08
chr18	68594475	68596772	2298	1246	49	30.24	3.21	51.74
chr18	68821378	68823808	2431	866	61	34.65	3.91	47.64
chr18	69028855	69030098	1244	513	29	42.03	4.09	47.02
chr18	69048756	69050035	1280	793	35	53.4	5.82	51.55
chr18	69370442	69371403	962	347	26	50.3	6.62	51.71
chr18	69493712	69494999	1288	1002	33	31.75	4.57	49.77
chr18	69510504	69512369	1866	618	44	33.02	4.28	49.13
chr18	69535911	69538462	2552	1993	62	64.54	4.52	54.74
chr18	69607386	69609924	2539	1147	63	63.56	4.98	54.59
chr18	69784321	69785573	1253	571	32	34.2	3.74	47.91
chr18	69812003	69813376	1374	794	32	49.91	5.84	51.69
chr18	69893240	69893881	642	277	20	51.09	7	51.84
chr18	69904388	69905839	1452	1184	31	39.31	5.27	46.55
chr18	70044651	70045406	756	336	21	45.2	6.09	49.15
chr18	70113489	70115139	1651	955	34	37.74	4.19	46.62
chr18	70125612	70126518	907	471	19	30.63	4.52	51.2
chr18	70191957	70192701	745	453	18	35.86	5.34	47



chr18	70270062	70271291	1230	625	24	30.17	4.93	51.65
chr18	70355615	70356455	841	290	20	38.37	6.93	46.41
chr18	70367807	70368782	976	269	22	35.04	4.52	47.48
chr18	70385775	70386653	879	282	21	30.97	4.79	50.44
chr18	70455647	70456731	1085	388	24	30.47	4.01	51.26
chr18	70478747	70480440	1694	289	37	46.22	4.95	48.62
chr18	70493110	70494072	963	691	25	44.16	5.33	48.09
chr18	70541106	70542107	1002	648	21	33.63	4.11	48.79
chr18	70553579	70555138	1560	955	31	31.13	3.08	50.62
chr18	70588909	70589851	943	686	21	36.92	5.34	46.83
chr18	70650771	70652572	1802	839	38	44.55	4.57	48.79
chr18	70793198	70795255	2058	656	40	37.25	5.52	46.44
chr18	70920549	70922086	1538	791	36	32.66	4.24	49.42
chr18	70938690	70939672	983	426	25	42.14	4.89	46.95
chr18	70974354	70975449	1096	805	30	47.04	4.99	47.56
chr18	71045638	71047063	1426	740	31	41.42	5.33	47.11
chr18	71419919	71420859	941	383	22	30.11	5.41	51.58
chr18	71468098	71470429	2332	1016	47	31.76	3.19	49.87
chr18	71646268	71647114	847	584	19	33.98	5.34	48.64
chr18	71696862	71699207	2346	712	61	44.67	5.18	48.8
chr18	71729538	71731683	2146	721	49	31.17	3.75	50.56
chr18	71980067	71981838	1772	493	40	31.63	3.84	49.9
chr18	72203783	72204818	1036	456	21	31.88	5.75	49.76
chr18	72210539	72211881	1343	680	32	56.23	6.16	53.85
chr18	72483034	72485598	2565	1442	65	45.13	4.51	48.91
chr18	72592474	72593981	1508	504	34	40.47	4.69	46.96
chr18	72875331	72876335	1005	602	21	33.48	4.93	48.6
chr18	73316113	73317637	1525	727	37	33.71	5.85	48.61
chr18	73407620	73408805	1186	708	25	31.51	4.19	49.88
chr18	73541871	73543359	1489	973	31	34.55	4.33	47.76
chr18	73727702	73729240	1539	1237	34	43.92	4.23	47.66
chr18	73731400	73732429	1030	616	24	35.84	5.33	46.99
chr18	74008511	74010002	1492	921	34	41.28	3.97	46.88
chr18	74016050	74017679	1630	656	39	36.6	3.6	46.92
chr18	74774066	74775352	1287	651	39	33.62	4.57	48.71
chr18	74805194	74807282	2089	1521	42	31.25	4.52	50.5
chr18	74946951	74948187	1237	659	30	39.65	5.43	46.47
chr18	74956837	74958126	1290	620	30	36.74	5.43	46.96
chr18	75025009	75026290	1282	924	35	37.27	3.93	46.58
chr18	75262612	75263885	1274	800	34	42.15	4.36	46.99
chr18	75383920	75385726	1807	554	36	37.58	4.95	45.82
chr18	75574500	75576102	1603	260	36	53.74	4.93	52.24
chr18	75994570	75995974	1405	915	35	59.05	4.41	52.5
chr18	76016240	76017463	1224	450	27	32.28	5.3	50.02
chr18	76218179	76219566	1388	842	33	51.9	5.24	50.96
chr18	76251490	76252494	1005	250	21	33.48	4.11	48.6
chr18	76916535	76920648	4114	3364	96	33.79	3.76	48.75
chr18	77102028	77104027	2000	574	40	30.02	4.24	51.48
chr18	77134477	77136157	1681	947	38	33.99	4.98	48.54
chr18	77282710	77284475	1766	1018	50	34.36	3.65	47.86
chr18	77452190	77453081	892	247	22	38.29	5.18	46.37
chr18	77472440	77473391	952	563	20	32.27	5.34	50.07

chr18	77515954	77516776	823	540	18	31.11	5.34	50.68
chr18	77619859	77620794	936	656	21	36.92	4.48	46.8
chr18	77653175	77655714	2540	536	59	30.28	3.33	51.66
chr18	77668023	77669181	1159	448	26	30.28	4.11	51.67
chr18	77737976	77739251	1276	635	30	31.81	5.29	49.83
chr18	77896163	77897179	1017	430	24	35.3	5.58	47.4
chr19	110248	112282	2035	1451	47	34.47	4.03	47.77
chr19	576928	577895	968	439	23	30.2	5.53	51.75
chr19	632309	633509	1201	496	24	30.42	4.43	51.32
chr19	892495	894615	2121	698	51	56.13	4.62	53.81
chr19	1094640	1095852	1213	738	30	55.57	5.75	54.05
chr19	1455237	1456496	1260	525	25	32.42	6.98	49.61
chr19	2086529	2088087	1559	937	44	33.38	4.55	48.69
chr19	2860899	2861564	666	352	18	37.62	6.09	45.84
chr19	3665712	3666418	707	500	17	33.74	6.16	48.66
chr19	4069702	4070534	833	615	19	34.81	6.98	47.51
chr19	5053895	5054725	831	599	18	30.66	4.93	51.04
chr19	5210277	5211044	768	427	18	34.38	5.75	47.81
chr19	5545554	5546400	847	555	20	38.39	6.16	46.28
chr19	5643305	5644119	815	500	20	35.77	4.14	47.15
chr19	6255591	6256550	960	564	24	44.73	5.34	48.83
chr19	6698569	6699746	1178	568	24	32.55	4.93	49.38
chr19	6736456	6738103	1648	957	41	31.16	3.69	50.56
chr19	6767262	6768805	1544	708	38	44.58	4.24	48.92
chr19	6942233	6942883	651	363	19	47.56	6.12	48.99
chr19	7063895	7064753	859	582	19	33.28	4.52	48.91
chr19	7082793	7083853	1061	469	26	42.91	4.62	47.39
chr19	7087493	7089117	1625	471	35	42.42	5.33	47.14
chr19	7247068	7247920	853	282	23	42.72	6.09	47.48
chr19	7739565	7740866	1302	784	29	41.95	6.23	47.1
chr19	8325512	8326348	837	564	20	39.03	5.75	46.33
chr19	8373021	8374144	1124	511	28	52.28	7.39	51.15
chr19	9503749	9504818	1070	655	21	30.21	5.34	51.72
chr19	9754621	9755600	980	647	21	30.8	3.81	51.01
chr19	10205818	10207675	1858	1164	49	33.43	4.89	48.62
chr19	10261885	10262713	829	285	20	39.15	5.3	46.29
chr19	10602063	10602965	903	438	22	35.11	5.71	47.42
chr19	11016866	11017781	916	227	20	30.37	4.57	51.62
chr19	11336236	11337129	894	618	19	31.32	4.52	50.32
chr19	11758658	11759529	872	279	19	32.54	4.93	49.4
chr19	12432505	12434091	1587	469	35	50.58	4.52	51.57
chr19	12521672	12522819	1148	537	23	30.26	4.93	51.68
chr19	12603093	12603805	713	464	17	33.36	6.16	48.67
chr19	12607721	12608695	975	269	20	31.07	4.11	50.75
chr19	13827982	13828890	909	653	19	30.52	4.93	51.32
chr19	14776135	14776799	665	219	17	36.6	5.75	46.93
chr19	15397117	15398221	1105	552	31	33.5	4.21	48.66
chr19	16215944	16216620	677	356	17	32.23	5.33	50.03
chr19	17205588	17206466	879	268	19	32.14	5.34	49.88
chr19	17391419	17393284	1866	1153	45	43.51	4.05	48.12
chr19	17660859	17661942	1084	544	24	32.93	6.09	49.33
chr19	18362592	18363561	970	366	20	31.32	4.93	50.27

chr19	19256322	19257868	1547	1257	32	35.2	4.33	47.17
chr19	19826355	19827341	987	422	21	30.43	5.71	51.29
chr19	19931353	19932676	1324	721	29	30.43	3.66	51.29
chr19	20940578	20941419	842	439	18	30.05	5.75	51.39
chr19	21219621	21220954	1334	709	37	42.17	5.14	47.06
chr19	21235127	21236069	943	246	21	32.8	4.57	49.45
chr19	21587075	21587944	870	270	20	31.84	4.84	49.75
chr19	21999907	22000924	1018	431	24	41.09	4.52	46.3
chr19	22401167	22401938	772	408	18	34.13	4.93	48.1
chr19	22452060	22453295	1236	755	26	37.31	5.75	46.68
chr19	22710239	22711366	1128	543	24	35.01	6.98	47.55
chr19	23220323	23221143	821	315	18	31.22	4.52	50.51
chr19	23234729	23235371	643	279	17	38.21	6.57	46.35
chr19	23356513	23357632	1120	395	23	31.57	5.34	49.96
chr19	23588144	23589741	1598	276	31	38.72	3.7	46.24
chr19	24009415	24010975	1561	692	45	83.98	7.61	45.45
chr19	24541890	24542989	1100	322	32	31.04	4.1	50.56
chr19	27791829	27793429	1601	998	34	32.42	4.45	49.61
chr19	27799081	27800255	1175	563	29	33.82	4.36	48.81
chr19	30301813	30302628	816	538	20	39.37	4.03	46.82
chr19	30405129	30405824	696	362	17	34.47	4.93	47.77
chr19	30476865	30478013	1149	858	29	55.23	5.75	53.08
chr19	31441219	31442121	903	236	19	30.84	5.34	50.85
chr19	32082345	32083294	950	514	22	36.52	4.93	46.93
chr19	32375766	32376696	931	318	20	33.4	6.57	48.71
chr19	32842560	32843529	970	279	27	31.98	5.57	49.85
chr19	33863134	33864342	1209	726	28	37.28	5.35	46.69
chr19	34457460	34458110	651	376	17	36.14	5.18	46.97
chr19	34503757	34505203	1447	670	33	50.09	4.93	51.86
chr19	34746064	34746887	824	571	18	31.05	5.34	50.62
chr19	34856314	34857675	1362	754	29	42.58	5.75	47.21
chr19	34931774	34932698	925	643	21	33.82	6.09	48.79
chr19	35105032	35106252	1221	767	25	34.24	5.75	47.92
chr19	36126112	36127177	1066	669	23	34.26	4.93	47.89
chr19	36543125	36544012	888	383	27	30.39	4.22	51.62
chr19	36891984	36892933	950	674	23	34	4.37	48.55
chr19	36936227	36937423	1197	581	27	41.34	5.58	46.9
chr19	37042294	37043018	725	438	19	42.05	4.93	47.04
chr19	37102452	37103134	683	416	16	30.73	4.52	50.98
chr19	37301735	37302699	965	590	20	31.58	4.11	50
chr19	37485263	37486165	903	301	19	30.84	4.52	50.85
chr19	37942233	37943018	786	285	19	37.78	4.93	46.69
chr19	37953343	37953976	634	282	20	48.57	5.16	49.54
chr19	38230721	38231696	976	467	20	31.01	6.16	50.49
chr19	38293378	38294287	910	623	20	34.58	5.34	47.72
chr19	38492220	38493997	1778	483	41	38.49	4.36	46.41
chr19	38511299	38511983	685	283	17	35.21	4.93	47.17
chr19	38663138	38664108	971	270	21	35.32	4.93	47.45
chr19	38996738	38997692	955	502	21	32.14	4.57	49.83
chr19	39188784	39189464	681	405	17	35.48	5.34	47.41
chr19	39923674	39924783	1110	381	25	31.02	4.94	50.52
chr19	39925994	39927327	1334	539	36	38.8	5.71	46.1

chr19	40042799	40043665	867	289	19	32.82	4.52	49.42
chr19	40047659	40048681	1023	534	25	31.15	5.22	50.61
chr19	40435363	40436262	900	263	19	31	4.11	50.47
chr19	40541296	40542219	924	349	20	33.79	4.52	48.76
chr19	41034299	41035935	1637	490	34	30.9	3.77	50.64
chr19	41748541	41750114	1574	254	34	47.32	4.93	48.23
chr19	41754150	41755004	855	527	19	33.51	5.34	48.65
chr19	41756300	41757160	861	247	19	33.16	4.11	49.11
chr19	41769346	41770821	1476	965	54	44.32	5.25	48.22
chr19	41978083	41978654	572	286	15	32.66	6.16	49.32
chr19	42281175	42282121	947	578	22	36.69	4.93	46.9
chr19	42548725	42549329	605	275	16	36.06	5.34	47.01
chr19	42794317	42796172	1856	522	41	36.45	3.81	47.14
chr19	42962031	42962943	913	640	20	34.41	6.16	47.76
chr19	43033626	43034664	1039	725	24	39.85	6.16	46.64
chr19	43405107	43406069	963	280	20	31.69	4.52	49.8
chr19	44021505	44022395	891	555	20	31.75	4.19	49.79
chr19	44123243	44124460	1218	539	32	30.15	4.48	51.63
chr19	44526168	44526989	822	595	18	31.16	4.93	50.58
chr19	44597314	44598824	1511	949	33	33.97	3.46	48.63
chr19	45223721	45224580	860	573	20	37.57	6.98	45.96
chr19	45392552	45394715	2164	1404	53	44.45	4.85	48.51
chr19	45506383	45507220	838	269	19	34.51	6.57	47.68
chr19	45878114	45879079	966	706	26	41.42	5.14	47.08
chr19	46497591	46498653	1063	531	23	34.42	4.93	47.8
chr19	46527777	46528926	1150	654	29	55.16	6.16	53.15
chr19	46889056	46889814	759	206	19	39.61	4.52	46.58
chr19	46952523	46953192	670	364	18	41.19	6.16	46.62
chr19	47024228	47025018	791	362	21	38.86	5.71	46.26
chr19	47713674	47714750	1077	620	23	32.64	5.24	49.35
chr19	47861019	47861686	668	288	18	41.34	6.57	46.9
chr19	48067556	48068240	685	423	17	35.21	5.75	47.17
chr19	48606069	48606885	817	527	21	34.83	5.48	47.54
chr19	48930651	48931661	1011	613	21	32.77	4.48	49.4
chr19	49117975	49118888	914	640	19	30.26	4.11	51.67
chr19	49275520	49276385	866	604	20	31	5.46	50.53
chr19	49738564	49739202	639	360	18	38.05	6.26	46.43
chr19	49841344	49845664	4321	3265	137	45.38	3.31	49.53
chr19	49850642	49853909	3268	2457	76	30.93	3.18	50.58
chr19	50586363	50587645	1283	760	27	38.81	5.34	46.14
chr19	51059164	51060477	1314	588	28	41.13	6.16	46.44
chr19	51076814	51077882	1069	579	21	30.26	5.34	51.61
chr19	51115289	51116760	1472	611	33	34.4	3.73	47.77
chr19	51141304	51142160	857	331	21	42.33	5.34	47.17
chr19	51219492	51220361	870	269	19	32.65	5.34	49.31
chr19	52338552	52340145	1594	1304	34	35.6	4.99	47.28
chr19	52456988	52458987	2000	1240	45	37.28	5.6	46.67
chr19	52510882	52513190	2309	1593	64	32.86	3.42	49.3
chr19	52977003	52978578	1576	281	37	49.6	3.68	51.23
chr19	53256928	53258252	1325	616	28	35.52	6.09	47.29
chr19	53569272	53570950	1679	1274	38	30.15	3.84	51.67
chr19	53821284	53823275	1992	1367	48	48.53	4.76	49.64

chr19	54071537	54073016	1480	1000	31	31.53	4.11	49.9
chr19	54769539	54770775	1237	416	32	40.77	4.98	46.47
chr19	54922298	54923671	1374	567	44	94.39	11.42	31.03
chr19	54976716	54978295	1580	279	35	32.31	3.88	50.08
chr19	54990365	54991639	1275	483	31	45.74	5.77	49.89
chr19	55048277	55049540	1264	793	26	30.09	5.21	51.54
chr19	55170992	55172297	1306	721	31	39.44	5.09	47.08
chr19	55812944	55813975	1032	650	34	44.35	4.41	48.43
chr19	56228792	56229702	911	436	19	30.42	6.16	51.31
chr19	56337227	56338739	1513	745	39	32.2	3.95	49.97
chr19	56347930	56351524	3595	1410	81	31.62	3.42	49.89
chr19	56405903	56407116	1214	566	28	46.66	6.16	47.41
chr19	56426633	56428479	1847	368	41	31.16	4.72	50.59
chr19	56502451	56503225	775	429	19	30.91	4.59	50.6
chr19	56763888	56765380	1493	530	35	36.39	4.52	47.19
chr19	56976326	56977313	988	736	22	34.39	4.52	47.77
chr19	57046564	57047602	1039	749	24	30.01	4.84	51.47
chr19	57086201	57087632	1432	697	36	56.97	6.47	52.74
chr19	57114097	57115716	1620	1341	46	63.2	4.76	54.21
chr19	57164238	57166073	1836	1570	40	57.26	5.34	53.2
chr19	57508242	57509264	1023	744	24	40.79	4.93	46.36
chr19	57665615	57666523	909	553	21	35.36	5	47.49
chr19	57679287	57680799	1513	1066	34	32.46	3.89	49.45
chr19	57737912	57738880	969	448	21	31.38	5.33	50.22
chr19	57814371	57815824	1454	761	39	30.18	3.7	51.66
chr19	57982275	57983932	1658	1019	36	38.44	4.59	46.39
chr19	58032979	58034479	1501	916	36	30.13	4.57	51.66
chr19	58229439	58230400	962	680	23	33.31	4.74	48.74
chr19	58230902	58233291	2390	1719	59	74.79	5.3	58.23
chr19	59005171	59005914	744	453	17	31.43	5.34	50.1
chr2	272359	273147	789	284	20	42.29	4.93	47.36
chr2	460412	461293	882	484	19	31.98	6.16	49.78
chr2	786455	787057	603	283	19	47.36	6.4	48.44
chr2	1172161	1172993	833	251	18	30.55	5.75	51.23
chr2	1217433	1219081	1649	893	170	1031.81	41.49	0
chr2	1704456	1705644	1189	510	28	48.15	7.8	49.46
chr2	2298630	2299981	1352	829	63	185.34	15.75	15.38
chr2	2958620	2959658	1039	347	22	31.73	4.52	49.74
chr2	3738143	3739164	1022	370	21	32.59	6.57	49.35
chr2	4283152	4284407	1256	523	29	48.46	6.16	49.39
chr2	4374125	4374943	819	264	19	35.67	5.75	47.22
chr2	4445214	4446083	870	258	19	32.65	5.75	49.31
chr2	5359368	5360134	767	491	17	30.07	4.93	51.5
chr2	5467472	5468285	814	565	19	35.98	6.98	47.1
chr2	6385659	6386879	1221	661	29	50.57	7.39	51.51
chr2	6495988	6497004	1017	424	26	36.9	5.71	46.76
chr2	6539121	6540890	1770	1322	41	56.86	4.93	52.58
chr2	6597336	6598183	848	646	19	30.19	4.19	51.72
chr2	6832966	6834205	1240	625	25	33.34	4.93	48.7
chr2	6994072	6995010	939	370	21	33.02	5.71	49.13
chr2	7454451	7455804	1354	573	28	39.11	4.52	46.27
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chr2	7676379	7677366	988	705	23	34.24	6.09	47.91
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chr2	8335820	8336660	841	256	18	30.11	5.34	51.58
chr2	8351762	8353214	1453	238	34	32.54	3.74	49.39
chr2	8390964	8391852	889	172	19	31.59	4.11	49.94
chr2	8657003	8657765	763	502	17	30.3	5.75	51.54
chr2	8887514	8888428	915	325	20	30.98	5	50.44
chr2	11049580	11050566	987	577	24	43	6.16	47.41
chr2	11170990	11171959	970	503	21	31.32	4.57	50.25
chr2	11177403	11178062	660	289	18	41.97	6.98	47.12
chr2	11271559	11272600	1042	689	24	39.23	4.48	46.48
chr2	11631029	11631902	874	286	22	41.2	6.57	46.62
chr2	11868634	11869499	866	278	19	32.88	5.34	49.29
chr2	12127399	12128684	1286	741	26	30.36	4.95	51.66
chr2	12182564	12184547	1984	1369	38	30.45	3.77	51.27
chr2	12340141	12341015	875	630	19	32	5.3	49.77
chr2	13043005	13043903	899	533	19	31.05	5.75	50.69
chr2	13343072	13345383	2312	964	49	35.21	2.85	47.18
chr2	13673719	13674642	924	266	21	38.05	4.52	46.4
chr2	14056613	14057679	1067	415	21	30.35	5.34	51.61
chr2	14093120	14093897	778	487	19	38.31	6.16	46.37
chr2	14866396	14867209	814	397	20	40.56	4.93	46.89
chr2	15166566	15167979	1414	902	31	47.82	4.52	49.43
chr2	15174029	15174946	918	416	19	30.05	4.93	51.47
chr2	16561329	16562231	903	266	23	43.9	6.16	47.85
chr2	17027065	17028074	1010	428	27	55.47	6.57	53.55
chr2	17341323	17342203	881	604	19	32.03	4.52	49.73
chr2	17354279	17355416	1138	516	24	34.5	6.57	47.67
chr2	17492806	17494038	1233	762	38	70.06	6.51	53.85
chr2	17619279	17620474	1196	464	28	40.84	5.21	46.38
chr2	17635205	17636336	1132	534	24	30.53	4.95	51.24
chr2	17737252	17738076	825	270	18	30.99	5.34	50.47
chr2	17963764	17964550	787	290	22	31.76	4.98	49.86
chr2	18030322	18031188	867	278	19	32.45	4.08	49.46
chr2	18106172	18107083	912	640	21	38.78	4.52	46.06
chr2	18206430	18207279	850	363	19	33.8	5.34	48.83
chr2	18616765	18617782	1018	727	26	50.12	6.57	51.8
chr2	19537890	19538721	832	561	19	34.87	5.34	47.65
chr2	20251422	20252988	1567	1088	48	44.47	5.03	48.41
chr2	20853442	20854353	912	291	24	36.21	5.76	46.93
chr2	21015960	21017001	1042	759	26	44.1	4.62	48.08
chr2	21910018	21910955	938	453	20	33.02	4.52	49.11
chr2	21960662	21961683	1022	588	21	32.59	4.52	49.35
chr2	22138284	22138784	501	250	16	48.45	6.57	49.14
chr2	22326606	22327371	766	224	17	30.13	4.93	51.65
chr2	22669109	22670018	910	627	21	38.91	4.52	46.27
chr2	22905947	22907100	1154	434	31	49.48	4.45	51.51
chr2	23011383	23011908	526	263	15	42.93	6.16	47.38
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chr2	23145234	23146044	811	532	18	31.79	5.34	49.76
chr2	23419306	23420135	830	540	20	38.44	4.83	46.42
chr2	24106932	24108614	1683	1067	37	31.02	4.98	50.5

chr2	24455941	24457022	1082	604	30	35.86	3.93	46.98
chr2	24479390	24480580	1191	482	30	57.04	10.27	52.75
chr2	24635890	24636509	620	287	17	39.97	6.16	46.81
chr2	24734725	24735522	798	290	18	32.55	4.93	49.31
chr2	24840447	24841244	798	346	20	32.5	4.15	49.39
chr2	25197820	25199153	1334	497	32	44.57	5.65	48.85
chr2	25718235	25718957	723	409	17	32.72	5.34	49.39
chr2	25850602	25851458	857	307	20	32.61	4.09	49.4
chr2	25982763	25984734	1972	1478	44	39.64	4.57	46.55
chr2	26244399	26245117	719	268	20	47.55	5.34	48.86
chr2	26315012	26315676	665	290	16	31.88	4.93	49.82
chr2	26359695	26360670	976	279	20	31.01	4.11	50.49
chr2	26880096	26880869	774	361	20	43.37	6.98	47.9
chr2	26979982	26980889	908	642	20	34.7	4.93	47.74
chr2	27756499	27757338	840	421	19	34.39	4.52	47.73
chr2	27768808	27769874	1067	528	23	30.09	4.95	51.55
chr2	28973816	28975327	1512	715	39	38.52	5.99	46.25
chr2	29445977	29449253	3277	2437	125	98.43	6.28	29.17
chr2	29733578	29735232	1655	605	30	36.25	3.7	46.94
chr2	30113332	30114494	1163	699	25	37.14	5.34	46.91
chr2	30411204	30411976	773	288	19	34.72	5.33	47.68
chr2	30435496	30436694	1199	392	25	35.31	5.34	47.42
chr2	30461158	30462097	940	291	21	37.1	4.93	46.88
chr2	30999953	31000847	895	353	19	31.27	4.93	50.46
chr2	31064182	31064892	711	398	17	33.48	5.75	48.67
chr2	31067180	31068119	940	337	20	32.91	5.75	49.24
chr2	31394085	31395151	1067	400	25	42.49	6.98	47.34
chr2	31529054	31530433	1380	797	30	45.62	6.16	50.15
chr2	31904128	31904954	827	285	18	30.88	4.93	50.73
chr2	32059721	32060958	1238	762	35	41.19	4.85	46.6
chr2	32090862	32093037	2176	1521	50	48.74	5.87	50.42
chr2	32192543	32193638	1096	533	28	54.16	6.16	53.1
chr2	32204188	32204941	754	478	23	38.17	5.29	46.26
chr2	32298860	32299817	958	364	21	36.06	5.75	46.97
chr2	32908395	32909563	1169	451	26	36.03	5.33	46.95
chr2	33306143	33308307	2165	1776	48	37.98	4.02	46.39
chr2	33394430	33395361	932	280	22	35.24	6.69	47.32
chr2	34628183	34629325	1143	590	25	36.31	6.37	47.02
chr2	34759281	34760105	825	424	19	35.3	5.75	47.33
chr2	35145211	35146476	1266	511	29	33.45	5.67	48.61
chr2	35311940	35312914	975	693	20	31.07	4.11	50.75
chr2	35908197	35909230	1034	541	23	35.97	4.52	47.03
chr2	36082407	36083289	883	593	19	31.92	6.98	49.72
chr2	36404550	36405997	1448	823	38	72.2	6.98	58.7
chr2	36564371	36565443	1073	599	23	33.9	4.52	48.62
chr2	36673354	36674011	658	395	16	32.34	5.34	49.93
chr2	36741380	36742350	971	351	21	35.32	5.75	47.45
chr2	36899226	36900973	1748	512	34	34.43	4.23	47.79
chr2	37064279	37065095	817	525	18	31.45	4.52	50
chr2	37201789	37202506	718	427	19	42.17	4.89	47.01
chr2	37527413	37529287	1875	623	40	31.37	4.36	50.26
chr2	38054386	38055295	910	381	21	38.91	5.34	46.27

chr2	38303280	38304292	1013	473	21	33.06	5.34	49.12
chr2	38370548	38372214	1667	1400	30	35.75	4.93	47.08
chr2	38513300	38514072	773	316	19	38.65	5.34	46.14
chr2	38701721	38702976	1256	666	25	32.6	6.16	49.42
chr2	38795243	38796197	955	302	27	34.44	4.57	47.76
chr2	38829064	38831051	1988	1309	57	37.68	3.86	46.41
chr2	38917019	38918620	1602	1341	32	42.16	4.11	46.99
chr2	39018498	39019845	1348	546	28	39.41	5.75	47.05
chr2	39427596	39428714	1119	838	29	57.3	5.75	53.75
chr2	39533157	39534326	1170	706	27	33.17	4.79	49.14
chr2	39684960	39685936	977	428	22	34.99	4.93	47.61
chr2	39917342	39918171	830	306	19	34.99	6.16	47.59
chr2	40515462	40516434	973	718	24	39.87	4.62	46.68
chr2	40854879	40856278	1400	653	29	40.65	5.34	46.66
chr2	40882127	40883172	1046	560	27	44.43	5.1	48.45
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chr2	41169189	41169950	762	482	17	30.36	4.11	51.65
chr2	41354159	41354913	755	490	17	30.77	4.11	50.95
chr2	41443441	41444255	815	285	19	35.92	5.34	47.05
chr2	41634017	41635484	1468	723	34	53.05	8.22	51.16
chr2	41705894	41707043	1150	420	23	30.17	5.75	51.66
chr2	41862515	41863991	1477	598	30	35.38	4.19	47.6
chr2	42552809	42553876	1068	523	23	30.04	6.09	51.45
chr2	42563891	42564631	741	286	17	31.61	4.52	49.92
chr2	42587595	42589239	1645	1021	42	49.18	4.69	50.72
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chr2	44218295	44219180	886	544	20	35.59	4.48	47.18
chr2	44267347	44268260	914	633	21	38.66	6.57	46.08
chr2	44625179	44626399	1221	742	32	49.13	7.53	50.77
chr2	44659014	44659845	832	543	19	34.87	6.16	47.65
chr2	45424891	45425934	1044	338	25	32.77	4.11	49.45
chr2	45447977	45448788	812	374	22	45.5	6.57	49.85
chr2	45484345	45485536	1192	523	27	43.7	5.34	47.84
chr2	45496813	45497734	922	471	20	33.9	5.75	48.66
chr2	45702541	45703483	943	676	23	31.05	4.45	50.6
chr2	45710131	45711215	1085	265	25	41.43	4.93	47.1
chr2	45907950	45910150	2201	288	53	33.41	3.11	48.72
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chr2	46513906	46514812	907	399	20	34.75	4.93	47.62
chr2	46665546	46666285	740	518	20	40.99	4.89	46.25
chr2	46701639	46702676	1038	498	24	39.91	5.34	46.65
chr2	47379261	47380806	1546	1315	35	43.77	4.79	47.74
chr2	47474618	47475460	843	418	19	34.21	4.11	47.87
chr2	47781027	47782410	1384	959	35	49.36	4.24	51.37
chr2	47947472	47949330	1859	1183	47	31.76	4.07	49.87
chr2	47998483	47999217	735	451	19	33.5	4.24	48.66
chr2	49109657	49110725	1069	559	27	38.86	4.79	46.24
chr2	49203870	49204694	825	495	24	54.62	5.75	54.11
chr2	49816410	49817655	1246	542	26	36.81	5.75	46.81
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chr2	50477117	50477992	876	650	19	32.31	5.34	50.09



chr2	50612844	50613433	590	304	15	32.23	4.93	50.04
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chr2	51592670	51593739	1070	795	24	38.09	5.34	46.44
chr2	52066077	52066806	730	455	18	36.86	6.57	46.79
chr2	52255428	52256333	906	377	19	30.68	5.34	51.01
chr2	52283603	52285013	1411	805	28	36.4	7.39	47.18
chr2	52805315	52806207	893	359	20	35.57	5.34	47.15
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chr2	54278809	54279782	974	379	20	31.12	4.52	50.72
chr2	54381363	54381954	592	322	15	32.09	5.75	49.72
chr2	54744408	54745481	1074	580	25	35.36	5.52	47.51
chr2	54874597	54875598	1002	287	24	42.06	4.93	47.01
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chr2	54965735	54967263	1529	286	31	31.39	3.18	50.21
chr2	55092540	55094750	2211	1445	54	38.15	4.11	46.29
chr2	55956721	55957577	857	279	22	42.33	4.93	47.17
chr2	55970103	55971264	1162	279	28	44.35	4.95	48.4
chr2	56076271	56077392	1122	490	29	57.09	7.8	53.02
chr2	56621416	56622999	1584	1014	31	39.35	4.93	46.77
chr2	57764504	57765541	1038	710	25	33.11	5.48	49.18
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chr2	58006699	58007478	780	533	18	33.64	4.52	48.75
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chr2	59602150	59603073	924	289	20	33.79	4.93	48.76
chr2	59875609	59876862	1254	743	28	38.39	4.89	46.36
chr2	59933150	59935936	2787	1138	65	51.09	5.15	51.78
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chr2	60901057	60902297	1241	830	33	37.91	5.71	46.58
chr2	61284168	61286953	2786	403	70	53.27	3.59	51.78
chr2	61334244	61336545	2302	1534	59	67.9	7.11	54.29
chr2	61944587	61945292	706	285	18	38.53	5.75	46.17
chr2	61985295	61986914	1620	1182	36	47.23	6.16	48.07
chr2	62183064	62184959	1896	1611	43	47.16	3.88	47.57
chr2	62300567	62301289	723	285	17	30.3	5.06	51.66
chr2	62474953	62475807	855	585	19	33.14	4.48	49.16
chr2	62492251	62493790	1540	966	33	30.03	3.32	51.48
chr2	62631895	62633095	1201	581	30	30.12	4.57	51.64
chr2	62800981	62801997	1017	434	26	32.88	5.34	49.33
chr2	62982058	62982839	782	500	23	33.62	5.06	48.7
chr2	63150573	63152300	1728	1102	42	30.14	3.69	51.65
chr2	63276387	63277959	1573	818	35	30.68	3.14	50.99
chr2	63403660	63404647	988	256	26	30.43	3.81	51.29
chr2	63510340	63513618	3279	670	84	77.2	5.02	54.29
chr2	63517336	63518740	1405	904	39	35.57	3.58	47.14
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chr2	63832636	63833669	1034	753	32	41.1	6.27	46.36
chr2	63876539	63878053	1515	1256	41	52.91	4.98	50.57
chr2	64168672	64171069	2398	1072	59	31.47	3.42	49.98
chr2	64833467	64835218	1752	641	51	51.24	5.22	51.25
chr2	65043091	65044806	1716	1461	48	31.26	3.18	50.43
chr2	65863109	65864396	1288	802	30	31.21	4.67	50.55
chr2	65990581	65991638	1058	478	22	30.79	4.93	50.99
chr2	66020694	66021748	1055	501	25	34.54	5.71	47.76
chr2	66181354	66182284	931	491	20	33.02	6.12	49.14
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chr2	66867094	66868005	912	289	21	36.42	4.72	47.16
chr2	66910666	66912674	2009	681	45	34.6	3.94	47.7
chr2	67034486	67035676	1191	792	32	51.13	7.19	51.65
chr2	67082286	67083654	1369	530	32	54.62	4.11	54.02
chr2	67134475	67135747	1273	757	30	35.66	5.27	47.28
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chr2	67323700	67324730	1031	488	24	34.52	5.58	47.71
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chr2	67366796	67369513	2718	943	69	31.29	4.11	50.33
chr2	67468699	67470436	1738	1174	39	35.8	3.81	47.13
chr2	67556859	67557966	1108	835	30	44.1	5.49	48.05
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chr2	67659554	67661029	1476	651	35	34.52	5.29	47.73
chr2	67667979	67670105	2127	759	52	35.52	3.69	47.25
chr2	67973961	67976054	2094	574	47	43.25	4.57	47.75
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chr2	68347441	68349616	2176	867	52	41.05	3.71	46.48
chr2	68418158	68420849	2692	1151	72	41.18	3.49	46.54
chr2	68925511	68928358	2848	2018	79	37.42	3.85	46.47
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chr2	69561366	69563533	2168	1429	51	34.12	4.35	48.06
chr2	69728631	69729680	1050	623	21	31.18	4.93	50.55
chr2	69980850	69982639	1790	1085	48	45.41	5.25	49.67
chr2	70028359	70030238	1880	637	45	32.4	4.7	49.73
chr2	70311120	70316787	5668	4819	172	31.71	3.1	49.73
chr2	70343845	70345730	1886	1343	57	54.07	5.25	52.79
chr2	70513279	70515052	1774	1000	45	30.23	4.57	51.71
chr2	70532131	70533691	1561	775	46	31.41	5.05	50.17
chr2	70598411	70600148	1738	1265	41	51.81	5.3	51.02
chr2	70800742	70802487	1746	526	37	33.06	3.99	49.15
chr2	70881835	70882643	809	447	18	31.01	5.24	50.48
chr2	70968601	70969994	1394	862	34	46.59	5.05	47.67
chr2	71212238	71213951	1714	959	49	83.02	6.78	50
chr2	71337395	71339494	2100	1399	50	36.66	3.62	47
chr2	71364121	71366020	1900	1345	49	32.11	4.68	49.71
chr2	71372448	71374840	2393	742	56	40.45	4.89	46.9
chr2	71412260	71413308	1049	725	21	30.24	4.83	51.74
chr2	71464975	71465855	881	471	25	41.23	5.65	46.73
chr2	71805732	71806468	737	282	18	36.39	5.34	47.16

chr2	72299513	72301118	1606	555	39	40.72	4.05	46.53
chr2	72680780	72682185	1406	547	32	31.7	3.74	49.76
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chr2	74698490	74700601	2112	1704	59	62.98	5.14	53.64
chr2	74908169	74909083	915	640	22	32.66	5.16	49.42
chr2	75331419	75332928	1510	884	37	32.57	4	49.32
chr2	75413219	75414719	1501	1217	35	35.59	4.18	47.15
chr2	75668291	75669504	1214	465	28	35.67	5.59	47.17
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chr2	76932594	76933771	1178	415	30	57.92	5.75	53.41
chr2	76972120	76974121	2002	506	41	41.79	4.74	46.98
chr2	77008625	77011016	2392	943	57	54.09	4.44	52.99
chr2	77028154	77029289	1136	291	30	35.97	4.43	47.07
chr2	77279479	77281226	1748	1111	43	33.59	3.34	48.69
chr2	77294889	77295904	1016	272	23	35.21	5.18	47.24
chr2	77343899	77345229	1331	557	32	48.04	5.89	49.18
chr2	77553106	77555023	1918	676	44	30.83	6.28	50.94
chr2	77593349	77594330	982	346	24	32.56	4.11	49.35
chr2	77695785	77696494	710	358	17	33.55	6.16	48.54
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chr2	77918187	77919438	1252	575	34	53.71	4.94	52.05
chr2	77951338	77952149	812	546	18	31.74	4.52	49.76
chr2	78027150	78029171	2022	1446	44	42.66	5.53	47.33
chr2	78065748	78066653	906	407	19	30.68	5.34	51.01
chr2	78183925	78185013	1089	539	23	30.2	5.45	51.76
chr2	78185100	78186834	1735	1085	40	37.49	3.74	46.02
chr2	78208469	78209873	1405	788	31	30.51	5.12	51.3
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chr2	78293504	78294714	1211	609	26	33.89	4.19	48.58
chr2	78403374	78404364	991	356	21	33.82	6.93	48.78
chr2	78404571	78405461	891	637	20	35.69	5.34	47.24
chr2	78447717	78448493	777	290	19	33.37	4.09	48.73
chr2	78467511	78468813	1303	693	26	32.24	5.18	50.05
chr2	78548593	78549652	1060	366	26	35.57	6.16	47.19
chr2	78663146	78664236	1091	509	28	41.42	5.48	47.07
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chr2	79142152	79143916	1765	562	41	36.63	4.23	46.98
chr2	79222877	79223920	1044	528	27	31.61	4.76	49.95
chr2	79475574	79476819	1246	679	26	36.81	7.39	46.81
chr2	79620688	79621910	1223	799	27	30.51	4.45	51.29
chr2	79756904	79759070	2167	586	53	47.9	5.02	49.1
chr2	79934462	79935333	872	453	21	35.23	5.16	47.22
chr2	80086649	80088025	1377	753	33	42.94	4.99	47.45
chr2	80186464	80187429	966	237	22	31.54	4.19	49.96
chr2	80245934	80248616	2683	703	58	47.14	4.24	47.5
chr2	80546095	80546862	768	363	24	44.26	6.52	48.16
chr2	80977468	80978595	1128	547	27	36.06	4.84	47.03
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chr2	81097407	81098368	962	683	20	30.19	4.78	51.73
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chr2	81248356	81249468	1113	521	29	31.73	3.71	49.75
chr2	81351146	81352278	1133	616	24	34.75	5.34	47.62
chr2	81366634	81367620	987	431	21	31	5.39	50.5
chr2	81417255	81418005	751	448	20	40.18	5.65	46.69
chr2	81521328	81523303	1976	1328	46	41.29	4.05	46.88
chr2	81635501	81636887	1387	555	31	35.9	5.48	46.96
chr2	81652813	81653991	1179	646	24	31.43	5.24	50.02
chr2	81792374	81793765	1392	654	31	35.65	4.79	47.27
chr2	82574709	82576457	1749	1471	35	32.13	4.64	49.81
chr2	82607351	82608415	1065	617	22	30.45	6.98	51.29
chr2	82897416	82899191	1776	1299	35	39.95	6.45	46.69
chr2	83013906	83014672	767	232	23	54.17	4.93	53.2
chr2	83116627	83117981	1355	550	33	39.61	4.36	46.64
chr2	83138715	83139839	1125	735	32	62.03	5.89	53.75
chr2	83160567	83161788	1222	617	24	30.53	8.22	51.25
chr2	83571479	83573395	1917	1363	37	31.96	5.53	49.78
chr2	83646575	83647437	863	290	20	34.53	6.62	47.72
chr2	83735709	83736914	1206	490	31	50.89	4.37	51.69
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chr2	84459097	84460688	1592	1318	30	35.48	4.93	47.43
chr2	84481084	84482791	1708	753	42	31.04	3.69	50.54
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chr2	84645768	84647757	1990	407	46	31.65	3.93	49.87
chr2	84732537	84734163	1627	1075	38	35.11	3.98	47.43
chr2	84991289	84993173	1885	502	49	46.63	4.57	47.26
chr2	85084309	85085841	1533	591	32	42.27	3.94	47.29
chr2	85090824	85091940	1117	270	25	32.45	4.37	49.55
chr2	85536642	85537764	1123	508	26	33.92	4.59	48.72
chr2	85746397	85748014	1618	361	34	37.44	3.26	46.37
chr2	86166686	86168166	1481	881	30	32.82	4.54	49.42
chr2	86168181	86169064	884	599	23	37.45	4.33	46.38
chr2	86731548	86733135	1588	923	44	34.79	4.96	47.57
chr2	87130341	87131608	1268	595	32	31.69	4.21	49.78
chr2	87409798	87413165	3368	1251	74	94.73	6.15	29.63
chr2	87872502	87874275	1774	291	37	31.27	3.95	50.45
chr2	87943275	87944484	1210	752	28	46.89	6.57	47.64
chr2	88372310	88373360	1051	500	23	32.71	5.51	49.36
chr2	88906662	88907845	1184	402	28	35.98	4.79	47.07
chr2	88957005	88957960	956	582	20	32.05	4.52	49.81
chr2	88958419	88959431	1013	722	21	33.06	6.98	49.12
chr2	89043926	89045438	1513	1012	37	39.05	3.74	46.28
chr2	89157307	89159821	2515	656	69	39.79	3.65	46.64
chr2	89952072	89952998	927	652	21	37.87	4.93	46.67
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chr2	91711495	91713658	2164	637	63	36.38	4.02	47.2
chr2	91971515	91975474	3960	3366	134	48.41	4.01	49.14
chr2	92024038	92025959	1922	537	48	68.73	7.73	56.69
chr2	92095791	92097315	1525	1092	37	35.66	3.91	47.2
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chr2	95410140	95410691	552	276	15	37.66	6.16	46.06
chr2	95688173	95689145	973	726	21	35.21	4.11	47.21
chr2	95732883	95733647	765	490	17	30.19	5.34	51.7
chr2	95851586	95852872	1287	741	27	38.61	4.93	46.12
chr2	96229050	96230114	1065	473	22	30.45	5.34	51.29
chr2	96431945	96432850	906	221	19	30.68	4.93	51.01
chr2	96581057	96581808	752	442	20	40.71	6.09	46.52
chr2	97826658	97828538	1881	1083	49	34.91	4.53	47.64
chr2	98407903	98409271	1369	488	32	44.18	4.33	47.96
chr2	98499180	98500326	1147	735	23	30.31	4.93	51.55
chr2	98501214	98502330	1117	453	23	31.72	5.75	49.72
chr2	98504981	98506375	1395	479	32	53.07	4.11	51.41
chr2	98576944	98578614	1671	543	32	39.03	4.52	46.21
chr2	98729085	98730504	1420	935	31	47.49	4.93	48.59
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chr2	100649914	100651498	1585	1017	35	50.68	6.16	51.59
chr2	100818718	100819736	1019	389	21	32.74	5.34	49.36
chr2	101414849	101415533	685	401	16	30.61	4.52	51.15
chr2	101478239	101479141	903	264	19	30.84	4.52	50.85
chr2	101934301	101934991	691	288	17	34.8	5.75	47.53
chr2	102201078	102201918	841	216	18	30.11	4.52	51.58
chr2	102313350	102314312	963	313	20	31.69	4.11	49.8
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chr2	103148653	103149715	1063	590	22	30.55	4.52	51.18
chr2	103365357	103367406	2050	429	43	43.63	5.48	47.66
chr2	103777315	103778357	1043	355	23	35.48	4.52	47.45
chr2	104132973	104133936	964	527	24	41.12	5.84	46.35
chr2	104733353	104734477	1125	285	24	35.16	4.52	47.08
chr2	104777394	104778211	818	543	18	31.39	5.75	50.18
chr2	105444921	105446119	1199	565	25	35.31	6.16	47.42
chr2	105674740	105675787	1048	519	21	30.29	4.43	51.68
chr2	105696493	105697481	989	520	20	30.36	6.16	51.62
chr2	105985371	105986779	1409	694	31	42.3	7.23	47.4
chr2	106780175	106781880	1706	635	33	35.36	3.81	47.52
chr2	107042216	107043286	1071	584	21	30.16	5.75	51.62
chr2	107772706	107773467	762	367	18	34.76	6.16	47.61
chr2	107952711	107953545	835	601	20	39.16	4.52	46.21
chr2	108039035	108039863	829	389	20	36.65	4.67	46.97
chr2	108495326	108496065	740	368	18	30.19	5.07	51.69
chr2	108507144	108508125	982	476	20	30.71	5.34	51.01
chr2	108568530	108570101	1572	1106	35	51.38	5.34	51.77

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chr2	109309833	109310594	762	515	17	30.36	5.34	51.65
chr2	109501575	109502132	558	279	16	34.17	5.48	48.01
chr2	109869852	109870590	739	303	18	30.19	4.34	51.69
chr2	111911369	111912303	935	657	20	33.18	5.34	49.11
chr2	111935297	111936033	737	248	19	41.17	4.52	46.48
chr2	112512948	112513812	865	578	22	31.8	5.14	49.83
chr2	112537205	112538242	1038	290	27	42.13	6.99	46.88
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chr2	112579226	112580509	1284	637	25	31.34	6.57	50.2
chr2	112630022	112631863	1842	494	37	48.61	4.89	49.95
chr2	112705007	112705510	504	252	15	42.93	6.16	47.38
chr2	113020846	113022191	1346	576	30	33.24	5.04	48.99
chr2	113072910	113073780	871	511	19	32.23	5.71	50.01
chr2	113551129	113552501	1373	656	34	43.73	5.82	47.86
chr2	114448252	114449223	972	247	22	31.22	4.19	50.58
chr2	114465641	114467296	1656	262	30	32.39	4.08	49.75
chr2	114472069	114473012	944	408	25	35.82	5.22	47.19
chr2	115665929	115667055	1127	835	28	52.08	5.75	51.12
chr2	116017355	116018422	1068	419	23	34.16	6.16	48.02
chr2	116362678	116363582	905	650	19	30.38	5.3	51.64
chr2	116828050	116828874	825	580	25	48.73	6.64	50.32
chr2	117618386	117620219	1834	696	38	43.06	4.19	47.31
chr2	117873426	117874573	1148	757	23	30.26	4.93	51.68
chr2	117898100	117898959	860	290	19	33.22	5.34	49.11
chr2	118727356	118728137	782	273	18	33.52	4.52	48.58
chr2	118813107	118814698	1592	1143	39	30.95	4.63	50.52
chr2	119118581	119119348	768	232	17	30.01	3.7	51.49
chr2	119206629	119207579	951	673	22	33.54	4.67	48.65
chr2	120567977	120569187	1211	577	25	34.72	5.75	47.7
chr2	122892689	122893456	768	526	17	30.01	4.93	51.49
chr2	123166881	123168138	1258	547	25	32.51	5.34	49.42
chr2	123953408	123954348	941	380	28	66.06	6.57	55.49
chr2	124054615	124055566	952	233	22	32.3	4.57	50.08
chr2	124100049	124100769	721	449	17	32.85	4.11	49.39
chr2	124430449	124431436	988	740	21	34.39	4.52	47.77
chr2	124615286	124615975	690	402	16	30.3	4.52	51.62
chr2	124626398	124627290	893	563	20	35.57	5.75	47.15
chr2	125711969	125713030	1062	695	25	42.79	5.75	47.35
chr2	126098764	126099767	1004	440	21	33.53	4.11	48.64
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chr2	126642754	126643788	1035	567	21	31.93	5.34	49.77
chr2	126921669	126922538	870	595	19	32.65	4.93	49.31
chr2	126994465	126995578	1114	504	25	39.78	6.16	46.6
chr2	127065676	127067457	1782	572	34	37.75	4.11	46.66
chr2	127500802	127501417	616	260	16	31.88	5.33	49.84
chr2	128245904	128247231	1328	633	29	32.09	4.45	49.72
chr2	128264651	128266047	1397	661	30	31.47	4.07	49.98

chr2	128266085	128267428	1344	788	33	31.75	4.47	49.77
chr2	129411719	129413569	1851	1183	35	45.2	4.52	49.08
chr2	129456050	129457166	1117	550	23	31.72	5.34	49.72
chr2	129492172	129493096	925	483	20	33.35	5.3	48.71
chr2	129650346	129651241	896	264	20	35.39	4.93	47.63
chr2	130288517	130289761	1245	683	25	33.1	5.34	49.16
chr2	130341988	130342865	878	671	19	32.2	4.11	49.92
chr2	130855573	130856493	921	466	27	37.79	4.35	46.68
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chr2	130992724	130993856	1133	601	31	66.05	6.57	55.15
chr2	131215806	131216970	1165	538	25	32.53	7.23	49.41
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chr2	131814478	131815274	797	390	19	34.89	6.3	47.61
chr2	132782287	132783591	1305	716	34	32.8	6.46	49.43
chr2	133711977	133713144	1168	439	25	36.88	5.34	46.69
chr2	134030354	134031539	1186	546	26	39.92	5.75	46.66
chr2	134161586	134162543	958	534	22	36.06	4.52	46.97
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chr2	135122071	135123044	974	547	22	31.11	5.33	50.7
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chr2	138765514	138766419	906	285	21	34.93	5.33	47.64
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chr2	139367925	139368758	834	623	18	30.49	4.52	51.26
chr2	139611756	139612998	1243	631	25	33.2	5.75	49.09
chr2	140087601	140088709	1109	485	24	35.99	4.93	47.09
chr2	140681365	140682527	1163	840	26	41.18	5.75	46.56
chr2	140697709	140698719	1011	614	21	33.16	4.52	49.1
chr2	140767561	140768351	791	253	18	32.97	5.34	49.28
chr2	141097804	141098619	816	271	18	31.51	4.11	49.84
chr2	141294105	141294960	856	374	27	68.15	8.63	53.68
chr2	141386613	141387571	959	692	21	36	6.16	47.07
chr2	142510935	142511996	1062	461	22	30.6	6.16	51.21
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chr2	142921196	142922263	1068	453	24	38.2	6.57	46.45
chr2	143714311	143715411	1101	582	25	40.04	5.3	46.59
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chr2	144105293	144106366	1074	430	24	32.22	4.47	49.99
chr2	144117119	144118611	1493	946	31	43.68	4.93	47.93
chr2	144400666	144401633	968	676	20	31.43	4.93	50.12
chr2	144406186	144407414	1229	636	28	45.78	5.75	50
chr2	144408234	144408983	750	289	17	31.07	4.93	50.77
chr2	144721345	144722337	993	708	20	30.16	4.93	51.68
chr2	144928640	144929576	937	468	21	33.73	5.39	48.65
chr2	145209072	145210686	1615	1133	37	43.1	4.19	47.27
chr2	145341356	145342261	906	289	19	30.68	5.34	51.01
chr2	145344860	145345722	863	505	20	37.38	6.16	46.58
chr2	145402233	145403496	1264	586	28	35.75	5.1	47.07

chr2	145584894	145585887	994	721	21	33.04	6.04	49.12
chr2	145914202	145915226	1025	547	22	31.43	4.83	50.07
chr2	146243802	146244786	985	329	21	34.55	4.11	47.78
chr2	146282292	146283132	841	500	21	43.43	6.98	47.96
chr2	146320939	146322823	1885	589	41	33.71	5.6	48.59
chr2	146387879	146388787	909	284	19	30.16	5.3	51.68
chr2	146493580	146494511	932	267	20	31.77	3.98	49.86
chr2	146555115	146556075	961	597	21	35.89	5.34	46.97
chr2	146568304	146569455	1152	646	23	30.08	4.93	51.53
chr2	146627090	146628675	1586	279	31	42.91	4.52	47.39
chr2	146726899	146727723	825	434	18	30.99	5.34	50.47
chr2	147051967	147052896	930	479	20	33.46	4.52	48.63
chr2	147202203	147203166	964	366	21	35.72	5.75	47.25
chr2	147228867	147229699	833	281	19	34.81	5.75	47.51
chr2	147395389	147396027	639	349	16	30.32	4.95	51.57
chr2	147489097	147490257	1161	700	26	41.29	6.16	46.86
chr2	147509073	147509874	802	397	21	30.78	5.29	50.98
chr2	147613270	147614095	826	565	18	30.94	4.11	50.56
chr2	148182290	148183091	802	547	18	32.32	3.7	50.01
chr2	148269181	148270198	1018	449	21	32.8	5.34	49.43
chr2	148627973	148628702	730	451	17	32.28	4.93	50.02
chr2	148954439	148955248	810	341	19	36.23	5.34	46.97
chr2	149378651	149379605	955	710	22	30.99	4.84	50.51
chr2	149885101	149885898	798	520	20	36.31	5.58	47.01
chr2	150332697	150333761	1065	286	21	30.45	4.52	51.29
chr2	150487297	150488276	980	584	23	39.04	5.34	46.26
chr2	151161973	151163031	1059	582	23	34.63	4.93	47.79
chr2	151163414	151164082	669	366	16	31.62	5.34	49.88
chr2	152222121	152223143	1023	425	24	40.79	6.16	46.36
chr2	152538258	152539229	972	287	22	35.27	4.52	47.3
chr2	152587784	152588493	710	444	18	38.25	5.34	46.33
chr2	152622247	152623937	1691	997	37	53.02	7.39	50.99
chr2	153539634	153540902	1269	893	31	31.32	4.1	50.32
chr2	153688492	153689310	819	541	19	31.86	4.19	49.73
chr2	153962888	153963712	825	291	18	30.99	5.34	50.47
chr2	154113577	154114554	978	461	20	30.91	5.34	50.61
chr2	154429423	154430400	978	628	24	43.57	6.57	47.99
chr2	154695301	154696844	1544	1157	35	52.91	6.16	50.49
chr2	154825132	154826592	1461	231	30	41.45	3.29	47.01
chr2	155038732	155040304	1573	663	33	35.53	4.79	47.24
chr2	155174652	155175700	1049	766	23	35.16	4.93	47.15
chr2	155316835	155317659	825	247	19	35.3	5.75	47.33
chr2	155433033	155434203	1171	755	31	63.2	11.5	54.46
chr2	155997785	155998577	793	448	18	32.85	4.93	49.28
chr2	156075172	156076348	1177	896	31	56.36	5.71	54.03
chr2	156232501	156233335	835	471	22	43.85	4.93	47.92
chr2	156413439	156414679	1241	698	30	53.76	6.57	52.33
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chr2	156957361	156958424	1064	630	24	38.43	6.16	46.35
chr2	157969725	157971013	1289	570	26	34.73	6.16	47.63
chr2	158177902	158178910	1009	384	22	33.26	4.93	48.94
chr2	158242832	158243751	920	481	20	34.02	5.75	48.52



chr2	158243844	158245247	1404	812	28	31.88	5.71	49.8
chr2	158279975	158282074	2100	480	44	35.08	4.94	47.37
chr2	158282663	158284246	1584	1110	32	32.85	4.28	49.32
chr2	158299640	158301679	2040	832	53	42.28	3.95	47.33
chr2	158343241	158344143	903	627	19	30.84	4.93	50.85
chr2	158393467	158394165	699	466	18	39.03	4.52	46.3
chr2	158463223	158464178	956	593	26	54.55	5.34	54.56
chr2	159059117	159059881	765	277	18	30.95	6.09	50.52
chr2	159916901	159917726	826	287	19	35.24	5.34	47.26
chr2	160627383	160628362	980	502	23	30.62	4.94	51.2
chr2	160824659	160825696	1038	570	23	35.75	5.75	47.04
chr2	161406706	161407738	1033	533	24	40.2	4.93	46.69
chr2	161890461	161891948	1488	857	35	53.42	5.58	51.81
chr2	161902839	161904099	1261	490	32	61.61	4.93	53.44
chr2	162113420	162114973	1554	1285	37	60.76	4.11	55.02
chr2	162294552	162295648	1097	355	24	32.26	5.71	50.06
chr2	162445502	162446342	841	401	18	30.11	5.75	51.58
chr2	162463249	162464411	1163	552	27	44.07	7.25	48.02
chr2	162556165	162556948	784	500	18	33.39	5.75	48.71
chr2	162955828	162956745	918	493	21	38.41	4.93	46.39
chr2	163157667	163158656	990	337	20	30.31	4.11	51.56
chr2	163202244	163203098	855	428	20	33.85	5.33	48.75
chr2	163497310	163498906	1597	1022	34	46.15	6.57	49.06
chr2	163626745	163627684	940	472	20	32.91	5.75	49.24
chr2	163746152	163747800	1649	1425	37	35.46	4.05	47.41
chr2	164038136	164039483	1348	722	28	39.41	6.98	47.05
chr2	164053170	164054336	1167	589	24	33.08	4.93	49.14
chr2	164065690	164067070	1381	278	31	49.66	4.52	51.35
chr2	164491090	164492033	944	544	23	30.99	5.14	50.51
chr2	164708568	164709444	877	389	20	36.52	5.34	46.89
chr2	164871088	164872284	1197	485	25	35.41	5.75	47.53
chr2	165252315	165253051	737	478	20	46.16	6.16	48.78
chr2	165340496	165341196	701	428	18	38.89	5.75	46.25
chr2	165522694	165523486	793	538	18	32.85	4.93	49.28
chr2	165583589	165584710	1122	511	25	39.33	4.52	46.61
chr2	165604765	165605594	830	573	18	30.71	4.11	50.99
chr2	165759047	165759931	885	566	19	31.81	4.93	49.78
chr2	165848742	165850560	1819	1290	42	66.39	4.93	54.66
chr2	165885412	165886673	1262	636	25	32.32	6.16	50.02
chr2	165960055	165961082	1028	553	21	32.28	4.93	50.03
chr2	165975346	165976636	1291	702	32	37.64	5.6	45.89
chr2	166180683	166181388	706	373	21	54.06	7.39	52.78
chr2	166257939	166259773	1835	1357	37	45.93	4.93	49.61
chr2	166415577	166416450	874	503	21	41.2	6.16	46.62
chr2	166502563	166504110	1548	346	30	37.39	4.11	46.66
chr2	166663774	166664704	931	636	22	37.63	5.34	45.83
chr2	166842326	166843270	945	572	20	32.64	5.75	49.32
chr2	167509789	167510459	671	344	17	36.18	5.75	46.87
chr2	167604499	167605561	1063	435	21	30.55	4.52	51.18
chr2	167679925	167680914	990	709	27	56.96	7.39	52.97
chr2	167728051	167728737	687	282	18	39.91	5.75	46.63
chr2	167869053	167870339	1287	805	28	30.15	5.09	51.65

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chr2	168547335	168548310	976	355	22	31.01	4.57	50.5
chr2	168610257	168611609	1353	688	26	31.85	5.34	49.79
chr2	169190860	169192156	1297	606	31	54.68	6.57	54.03
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chr2	170252476	170253217	742	289	17	31.55	4.93	49.94
chr2	170319503	170320310	808	454	18	31.97	5.34	49.79
chr2	170327421	170328457	1037	361	24	39.97	5.34	46.76
chr2	170367947	170369292	1346	684	29	31.88	5.53	49.81
chr2	170388277	170389343	1067	450	22	30.35	4.11	51.61
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chr2	170654948	170656295	1348	674	33	37.88	6.2	46.58
chr2	170865466	170866994	1529	693	40	70.27	5.45	53.45
chr2	170892462	170893845	1384	1096	31	36.04	3.42	46.95
chr2	170925148	170926182	1035	554	25	31.58	4.32	49.98
chr2	171140034	171141652	1619	867	41	55.7	4.45	53.56
chr2	171239049	171240086	1038	485	29	62.72	6.52	55.16
chr2	171481223	171482129	907	286	20	34.75	4.52	47.62
chr2	171529680	171531073	1394	1106	32	53.13	6.57	51.51
chr2	171847463	171848386	924	690	21	34.48	4.62	47.73
chr2	171924348	171925031	684	399	16	30.67	4.93	50.97
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chr2	172804487	172805729	1243	715	29	49.23	7.39	51.07
chr2	173524107	173524817	711	396	18	38.18	5.34	46.28
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chr2	174958823	174959844	1022	489	22	32.59	6.98	49.35
chr2	174970753	174972171	1419	565	35	31.15	4	50.59
chr2	175131887	175132955	1069	717	23	34.11	5.34	48.12
chr2	175140243	175141069	827	244	20	38.01	4.38	46.49
chr2	175286583	175287560	978	393	21	30.9	4.95	50.66
chr2	175803809	175805059	1251	529	25	32.83	7.39	49.4
chr2	175994095	175995517	1423	938	33	41.25	4.69	46.83
chr2	176559530	176560785	1256	609	29	42.91	5.33	47.37
chr2	176758619	176759609	991	524	23	38.39	5.75	46.31
chr2	177083511	177084584	1074	547	21	30.02	5.75	51.49
chr2	177495740	177496700	961	265	21	31.81	3.81	49.84
chr2	177557001	177558951	1951	600	44	55.2	4.19	52.97
chr2	177784180	177785095	916	653	19	30.15	4.93	51.66
chr2	177885386	177886564	1179	431	26	40.3	5.75	46.9
chr2	178086894	178089325	2432	290	62	30.01	3.88	51.46
chr2	178335931	178336887	957	331	21	33.21	5.06	49.14
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chr2	179399627	179400796	1170	485	25	36.33	5.3	47
chr2	179401597	179403609	2013	734	41	48.57	6.09	49.64
chr2	179425016	179426388	1373	658	31	44.23	5.33	48.26
chr2	179441877	179443231	1355	526	29	41.59	6.85	47.28
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chr2	180384578	180385481	904	650	19	30.79	5.34	50.91
chr2	180590382	180591380	999	262	24	42.25	5.34	47.08
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chr2	180785444	180787432	1989	529	42	42.8	3.53	47.45
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chr2	181215642	181216670	1029	548	24	37.89	5.51	46.65
chr2	181375854	181376892	1039	282	24	35.34	4.95	47.47
chr2	181823280	181823917	638	347	18	39.78	6.47	46.65
chr2	182202508	182204782	2275	1765	47	31.68	3.74	49.82
chr2	182286859	182287664	806	538	20	30.5	4.03	51.28
chr2	182381943	182384351	2409	1095	53	32.36	3.65	49.84
chr2	182632112	182633176	1065	446	25	31.63	5.48	49.89
chr2	182684830	182686406	1577	283	30	43.35	3.29	47.87
chr2	182689237	182690022	786	522	18	33.27	4.52	48.88
chr2	182874899	182875725	827	400	18	30.88	4.52	50.73
chr2	182949803	182950960	1158	609	25	34.85	4.72	47.62
chr2	182982097	182982945	849	568	20	38.26	4.52	46.3
chr2	183413444	183414545	1102	813	24	36.36	4.52	47.17
chr2	183467897	183469446	1550	268	33	48.56	4.52	49.59
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chr2	183815055	183816231	1177	593	28	48.89	7.39	50.48
chr2	183925364	183926183	820	555	19	35.61	6.16	47.29
chr2	184049309	184050215	907	637	20	34.37	4.89	47.85
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chr2	184501799	184502831	1033	405	21	32.03	5.34	49.77
chr2	184949237	184950071	835	272	18	30.44	4.52	51.32
chr2	185130581	185131450	870	588	20	36.95	5.34	46.89
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chr2	185322886	185324064	1179	675	25	36.31	5.34	47.01
chr2	185486059	185487177	1119	595	25	33.58	4.47	48.72
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chr2	185808242	185809499	1258	456	26	36.22	5.75	46.97
chr2	185887254	185888244	991	389	25	47.28	6.16	48.1
chr2	185898518	185900102	1585	267	34	46.76	5.34	47.39
chr2	186526608	186528201	1594	942	35	50.21	6.16	51.44
chr2	186654701	186655602	902	617	19	30.89	5.34	50.73
chr2	186701764	186703270	1507	1109	42	87.38	7.39	44.44
chr2	186832142	186832910	769	241	19	38.92	5.75	46.24
chr2	186943799	186945071	1273	605	30	51.76	4.93	50.95
chr2	187124928	187125928	1001	636	23	33.52	4.95	48.62
chr2	187224676	187225295	620	335	16	34.96	6.16	47.71
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chr2	189045646	189046382	737	477	17	31.85	4.52	49.71
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chr2	191066063	191067257	1195	543	28	32.9	4.94	49.33
chr2	191096017	191097687	1671	1077	37	45.52	4.84	49.93
chr2	191103268	191104173	906	463	19	30.68	5.75	51.01
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chr2	191281629	191282313	685	395	16	30.61	6.16	51.15
chr2	191448010	191449731	1722	1150	33	36.85	5.34	46.81
chr2	191472835	191473715	881	280	22	40.74	4.52	46.6
chr2	191661294	191662195	902	528	20	35.04	5.75	47.43
chr2	191807439	191808662	1224	780	26	30.1	3.97	51.54
chr2	191944551	191945338	788	288	18	33.15	5.34	49.12
chr2	192434728	192435480	753	465	19	37.2	4.67	46.96
chr2	192454480	192455391	912	277	21	38.78	4.93	46.06
chr2	192589683	192591309	1627	326	36	52.44	4.52	50.39
chr2	192622254	192622814	561	280	18	34.23	5.6	47.91
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chr2	193655116	193656576	1461	559	30	36.88	4.23	46.72
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chr2	195510114	195511207	1094	535	24	36.35	7.75	47.08
chr2	195619737	195620499	763	479	17	30.3	5.34	51.54
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chr2	196750301	196751215	915	651	20	34.3	4.93	47.81
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chr2	197201635	197202346	712	285	17	30.48	5.39	51.26
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chr2	205466653	205467726	1074	794	29	60.56	7.39	55.31
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chr2	205924383	205925226	844	345	21	43.22	5.34	47.65
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chr2	206074440	206075610	1171	636	30	31.73	5.42	49.74
chr2	206189082	206190408	1327	644	32	57.24	7.39	53.06
chr2	206274021	206275418	1398	883	31	42.88	5.33	47.35
chr2	206390233	206391222	990	659	21	33.25	4.03	48.92
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chr2	209114633	209116540	1908	790	51	52.64	3.74	50.48
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chr2	209495941	209496989	1049	594	24	39.28	5.75	46.43
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chr2	209987319	209988943	1625	1102	31	30.87	4.47	50.84
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chr2	210326964	210328076	1113	402	27	48.45	5.34	49.34
chr2	211057279	211058155	877	590	20	36.52	4.93	46.89
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chr2	211455319	211456133	815	291	18	31.56	4.93	49.92
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chr2	211487240	211488065	826	286	19	31.45	6.09	50.04
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chr2	211871331	211872175	845	467	22	38.77	5.71	46.02
chr2	211888268	211889071	804	272	20	41.24	4.11	46.72
chr2	212154522	212155799	1278	584	26	35.25	5.34	47.32
chr2	212794187	212794650	464	232	15	43.92	5.14	47.75
chr2	212800628	212802225	1598	554	30	35.23	5.34	47.23
chr2	212909511	212910176	666	351	16	31.82	4.11	49.84
chr2	213320848	213322012	1165	710	24	33.17	4.93	49.13
chr2	213923388	213924439	1052	282	24	37.95	4.43	46.49
chr2	214099410	214100529	1120	789	26	43.64	6.57	47.88
chr2	214141118	214141951	834	269	20	39.23	6.98	46.45
chr2	214538271	214539310	1040	632	22	31.68	6.16	49.85
chr2	214819521	214820838	1318	749	27	37.08	5.75	46.93
chr2	214822947	214824141	1195	566	24	31.75	6.16	49.81
chr2	215592785	215594261	1477	777	38	62.64	6.85	55.11
chr2	215644686	215646467	1782	938	53	35.16	4.92	47.08
chr2	215910194	215910936	743	375	19	40.73	5.75	46.57
chr2	216009826	216010828	1003	521	21	33.58	6.16	48.66
chr2	216440981	216442012	1032	562	23	36.07	5.34	46.98
chr2	217276452	217277667	1216	666	31	32.46	4.57	49.46
chr2	218132740	218133629	890	613	19	31.54	4.11	49.9
chr2	218192449	218193719	1271	478	27	39.43	5.34	47.1
chr2	219359185	219360318	1134	384	27	36.37	4.19	47.15
chr2	219744453	219745317	865	542	20	37.26	4.93	46.48
chr2	219817545	219818360	816	533	18	31.51	4.52	49.84
chr2	219860288	219861406	1119	496	25	39.5	6.98	47
chr2	220793206	220794038	833	514	19	34.81	6.98	47.51
chr2	221464840	221465810	971	705	22	35.32	5.34	47.45
chr2	222610258	222611226	969	464	20	31.37	6.16	50.25
chr2	223439278	223440617	1340	641	27	36.03	6.57	46.98
chr2	223457715	223458842	1128	527	23	31.19	6.57	50.51
chr2	223861055	223861777	723	451	19	41.79	4.89	47.03
chr2	223892517	223893197	681	411	17	35.48	4.52	47.41
chr2	224158594	224159310	717	462	18	37.76	5.34	46.71
chr2	224564578	224565302	725	436	18	37.2	4.93	46.93
chr2	224853600	224854672	1073	396	26	46.51	5.75	48.05
chr2	225163032	225163938	907	634	19	30.63	5.34	51.2
chr2	225376152	225377632	1481	754	35	47.24	7	48.11
chr2	226105326	226106554	1229	499	25	33.86	6.16	48.76
chr2	226115834	226116739	906	622	19	30.68	4.52	51.01
chr2	226841628	226842660	1033	397	21	32.03	4.93	49.77
chr2	227066881	227067788	908	278	20	34.7	5.34	47.74

chr2	227344755	227345951	1197	402	27	43.42	5.34	47.88
chr2	227606806	227607935	1130	574	24	30.63	5.33	51.2
chr2	227633859	227635564	1706	271	32	35.32	3.58	47.44
chr2	227660416	227661904	1489	715	42	34.95	4.58	47.68
chr2	228097329	228098180	852	432	19	33.68	4.93	48.55
chr2	228400933	228402224	1292	648	27	36.38	5.18	47.19
chr2	228501113	228502075	963	700	21	31.7	4.95	49.76
chr2	228660552	228661886	1335	703	29	31.76	5.82	49.85
chr2	230269171	230270163	993	745	21	34.12	4.11	48.07
chr2	230367633	230368418	786	249	18	33.27	4.52	48.88
chr2	230438822	230439782	961	677	21	35.89	4.93	46.97
chr2	230606481	230607385	905	583	19	30.73	4.11	50.98
chr2	230623003	230624086	1084	329	25	41.49	5.34	47.06
chr2	230902268	230902876	609	403	20	57.58	6.98	54.11
chr2	231232696	231233775	1080	634	29	40.07	4.4	46.57
chr2	231280648	231282810	2163	1576	57	39.33	3.42	46.56
chr2	231335925	231336797	873	630	22	30.31	3.69	51.58
chr2	231404098	231405085	988	715	20	30.41	4.52	51.4
chr2	231627895	231629292	1398	760	32	38.78	4.45	46.02
chr2	231767065	231768617	1553	1070	40	33.01	5.01	49.15
chr2	231838494	231839524	1031	274	25	39.15	5.27	46.27
chr2	231985616	231987793	2178	288	51	33.34	3.95	48.69
chr2	232164730	232165613	884	379	20	36.1	4.93	47.01
chr2	232463019	232463997	979	530	21	33.84	6.04	48.74
chr2	232933671	232934647	977	384	21	34.99	4.93	47.61
chr2	233557273	233558184	912	207	19	30.36	4.52	51.57
chr2	233605014	233606404	1391	644	33	50.77	5.97	51.8
chr2	233688753	233689546	794	279	19	31.78	4.42	49.87
chr2	233851618	233852480	863	261	20	37.38	4.52	46.58
chr2	234469915	234471388	1474	695	33	35	4.79	47.63
chr2	234567167	234568052	886	549	19	31.76	4.93	49.79
chr2	234575878	234577427	1550	233	31	30.65	3.54	51.14
chr2	235663584	235664425	842	254	18	30.05	4.52	51.39
chr2	237903369	237904122	754	259	19	35.98	4.95	47.05
chr2	239297765	239298541	777	428	22	41.07	5.83	46.35
chr2	239530331	239531858	1528	727	37	31.71	4.57	49.73
chr2	239953891	239954658	768	481	18	34.38	6.16	47.81
chr2	242315767	242316639	873	575	20	31.67	4.47	49.85
chr2	242521146	242521956	811	357	18	31.79	4.52	49.76
chr2	242855708	242856752	1045	448	24	39.5	4.93	47.08
chr2	243028407	243030292	1886	1175	46	30.85	3.42	50.91
chr2	243053900	243054783	884	286	21	40.55	6.57	46.93
chr20	135736	136671	936	648	21	37.33	4.52	46.7
chr20	146892	147618	727	479	18	37.07	4.93	46.97
chr20	1437758	1438617	860	283	19	33.22	5.75	49.11
chr20	1463335	1464138	804	215	18	32.2	4.93	49.96
chr20	2708699	2710689	1991	754	44	43.15	5.82	47.36
chr20	2760466	2761535	1070	631	26	46.7	5.75	47.49
chr20	3024419	3025652	1234	485	30	38.45	3.99	46.38
chr20	3155324	3157447	2124	1467	45	58.07	5.34	53.46
chr20	3243561	3244118	558	279	15	34.22	5.71	47.93
chr20	3451153	3452062	910	285	23	38.9	5.33	46.27

chr20	4364483	4365726	1244	604	27	40.84	6.16	46.36
chr20	4758535	4759581	1047	701	26	41.61	4.84	47.2
chr20	4958625	4960451	1827	272	39	42.21	4.33	46.95
chr20	5120146	5121430	1285	590	26	34.92	5.34	47.58
chr20	5431835	5432885	1051	439	21	31.13	7.39	50.63
chr20	5548090	5549897	1808	656	38	40.34	4.03	46.91
chr20	5637842	5638707	866	586	19	32.88	6.57	49.29
chr20	5647096	5648228	1133	324	27	47.2	6.16	47.69
chr20	5930461	5931723	1263	437	29	35.33	4.79	47.47
chr20	6321546	6322367	822	557	21	44.77	4.93	48.85
chr20	6664213	6664831	619	335	18	45.33	6.98	49.35
chr20	7251841	7252651	811	257	18	31.79	5.34	49.76
chr20	7960815	7961839	1025	329	26	44.45	6.47	48.51
chr20	8024484	8025305	822	220	20	30.51	3.77	51.29
chr20	8106420	8107060	641	278	16	33.48	4.93	48.68
chr20	8553897	8554669	773	506	18	30.47	4.19	51.22
chr20	9384514	9385255	742	257	17	31.55	6.16	49.94
chr20	9545254	9547202	1949	710	39	47.92	6.16	49.19
chr20	9560411	9561376	966	216	20	31.53	4.93	49.91
chr20	9793485	9794702	1218	533	26	38.23	8.22	46.28
chr20	10054253	10055737	1485	376	32	33.79	3.39	48.74
chr20	10591144	10591985	842	573	18	30.05	4.93	51.39
chr20	10933199	10934033	835	265	22	39.44	4.57	47.09
chr20	12903135	12903880	746	217	17	31.31	6.57	50.36
chr20	12919957	12920732	776	264	19	38.44	4.93	46.41
chr20	13026736	13027762	1027	368	25	40.08	5.71	46.58
chr20	13391496	13392239	744	371	18	35.93	5.34	47.06
chr20	13433249	13434007	759	485	21	49.56	7.8	51.23
chr20	13439073	13440031	959	356	20	31.9	4.93	49.83
chr20	13558035	13559584	1550	938	31	40.92	4.93	46.44
chr20	13666028	13667158	1131	503	24	34.86	5.75	47.63
chr20	14019064	14019946	883	613	19	31.92	4.11	49.72
chr20	14082246	14083207	962	631	21	34.15	5.18	47.99
chr20	15853952	15854820	869	562	22	41.53	5.75	47.2
chr20	16065562	16066795	1234	544	29	41.84	4.05	47.06
chr20	16210218	16211047	830	266	20	35.4	4.95	47.55
chr20	16433511	16435441	1931	1371	42	60.16	6.98	55.16
chr20	17978388	17979583	1196	560	29	52.14	6.16	50.98
chr20	18491375	18492741	1367	569	30	40.74	4.95	46.62
chr20	19604620	19605919	1300	692	28	40.55	6.04	46.91
chr20	19721318	19722645	1328	589	27	36.6	5.75	46.9
chr20	20016034	20017203	1170	659	24	32.93	4.52	49.34
chr20	20452137	20452971	835	274	18	30.44	4.52	51.32
chr20	20962643	20963675	1033	653	26	49.11	5.75	50.72
chr20	21044750	21046020	1271	807	28	43.42	6.57	47.88
chr20	21306034	21307766	1733	1056	40	37.85	4.37	46.82
chr20	21446471	21447539	1069	637	22	30.26	4.11	51.61
chr20	21509502	21511181	1680	266	35	45.87	4.11	50.19
chr20	21907436	21908177	742	488	17	31.55	6.16	49.94
chr20	22172407	22173256	850	455	19	33.8	5.34	48.83
chr20	22846316	22847485	1170	817	28	49.32	5.75	51.02
chr20	23104330	23105228	899	226	19	31.05	4.52	50.69



chr20	23114998	23115987	990	733	20	30.31	4.93	51.56
chr20	23750791	23751664	874	289	20	36.71	4.52	46.91
chr20	24912641	24913647	1007	717	24	41.76	5.34	47.11
chr20	25404207	25405074	868	489	19	30.69	3.94	51.04
chr20	25646980	25647997	1018	476	23	36.85	5.75	46.82
chr20	25880726	25882014	1289	635	30	34.82	4.28	47.5
chr20	26122455	26125263	2809	2070	87	30.76	3.92	50.95
chr20	26188079	26190496	2418	1953	1528	429.05	6.52	28.57
chr20	29446570	29452612	6043	3304	193	36.82	3.27	46.84
chr20	30433964	30435031	1068	546	21	30.31	4.52	51.54
chr20	30470856	30472162	1307	721	27	37.62	5.34	45.82
chr20	30865856	30866903	1048	276	26	31.12	4.4	50.7
chr20	31012379	31013696	1318	602	26	33.4	5.34	48.7
chr20	31022273	31023701	1429	667	32	39.4	6	46.94
chr20	31031548	31032481	934	663	24	46.47	5.34	48.3
chr20	31987609	31989322	1714	465	40	34.88	4.17	47.67
chr20	32593671	32594438	768	372	19	38.99	5.34	46.16
chr20	32856169	32857070	902	286	19	30.89	5.75	50.73
chr20	33023119	33024878	1760	492	41	39.35	3.74	46.82
chr20	33191252	33192686	1435	805	29	38.95	4.52	46.16
chr20	33643395	33644479	1085	437	23	31.61	5.58	49.96
chr20	33648565	33649745	1181	471	26	35.41	4.57	47.52
chr20	33672049	33673599	1551	622	32	34.29	3.57	47.83
chr20	34429855	34430749	895	283	24	49.22	5.34	51.01
chr20	34658074	34660028	1955	1217	39	47.65	5.75	49.26
chr20	35146967	35147796	830	555	18	30.71	4.93	50.99
chr20	35935575	35936475	901	283	21	39.47	6.57	47
chr20	36025773	36026709	937	404	21	33.14	6.09	49.17
chr20	36378109	36379165	1057	313	21	30.84	4.11	50.83
chr20	36755756	36756761	1006	674	22	33.42	5.34	48.69
chr20	37213505	37214234	730	444	17	32.28	4.52	50.02
chr20	37471877	37473012	1136	458	26	42.71	5.75	47.45
chr20	37831645	37832526	882	461	20	36.22	5.75	46.99
chr20	38695947	38696844	898	630	20	35.28	4.93	47.36
chr20	39819420	39820590	1171	611	24	30.53	7.09	51.25
chr20	39827020	39827918	899	246	20	35.22	4.52	47.23
chr20	39861720	39862906	1187	717	26	39.87	4.52	46.65
chr20	39887178	39888617	1440	630	30	42.49	6.16	47.36
chr20	40410682	40411670	989	716	22	34.33	5.75	47.78
chr20	40485839	40486590	752	547	18	35.4	5.34	47.5
chr20	41166860	41168102	1243	704	26	35.77	4.83	47.12
chr20	41829591	41830299	709	423	17	33.61	5.34	48.7
chr20	42606142	42607378	1237	544	26	32.62	3.81	49.43
chr20	43094731	43095784	1054	621	27	39.78	7.19	46.62
chr20	43522644	43523961	1318	808	31	32.89	4.36	49.35
chr20	43594817	43595999	1183	290	36	36.2	4.89	46.94
chr20	43672407	43674290	1884	1441	33	34.46	3.42	47.78
chr20	43823997	43825023	1027	739	21	31.94	4.08	49.76
chr20	43894960	43896514	1555	1286	31	40.68	4.93	46.55
chr20	44187116	44187978	863	598	20	37.38	4.93	46.58
chr20	44212509	44213311	803	532	20	37.15	5.33	46.93
chr20	44439021	44440187	1167	765	28	47.27	5.97	48.11

chr20	45091188	45092012	825	550	21	44.55	5.34	48.76
chr20	45954869	45955918	1050	337	29	60.83	6.85	55.06
chr20	46612970	46613820	851	240	21	42.74	5.34	47.45
chr20	46903679	46904814	1136	667	24	34.6	5.75	47.74
chr20	47862786	47863974	1189	720	34	71.79	7.8	57.14
chr20	47873711	47874580	870	587	21	41.46	5.34	47
chr20	48222894	48223915	1022	452	21	32.59	5.75	49.35
chr20	48715784	48716647	864	434	20	33.89	6.54	48.6
chr20	49550389	49552104	1716	372	40	31.49	3.71	49.91
chr20	50100622	50101580	959	281	21	36	4.93	47.07
chr20	50419489	50420365	877	282	19	32.26	5.75	49.99
chr20	51729961	51730845	885	603	20	36.04	4.93	46.89
chr20	51808074	51808809	736	191	18	36.46	4.93	47.14
chr20	52609128	52609816	689	382	17	34.94	6.16	47.67
chr20	52720554	52721386	833	455	19	31.04	4.19	50.55
chr20	53510678	53511350	673	386	17	36.04	6.16	46.9
chr20	53625306	53625958	653	366	21	59.04	7.39	52.34
chr20	54213101	54213780	680	288	18	36.59	5.71	46.91
chr20	55129568	55131456	1889	1335	35	32.04	4.23	49.77
chr20	56048120	56049644	1525	836	39	33.98	3.53	48.58
chr20	56641451	56642331	881	601	20	36.28	4.52	46.9
chr20	56670594	56671582	989	471	20	30.36	5.34	51.62
chr20	56985322	56986014	693	404	18	32.56	4.64	49.35
chr20	57634410	57635823	1414	773	30	42.42	4.83	47.16
chr20	57691297	57692246	950	623	20	32.37	5.75	49.78
chr20	57833791	57834685	895	481	20	32.66	5.45	49.42
chr20	58052258	58053210	953	276	21	36.34	6.16	47.04
chr20	58504004	58504677	674	276	16	31.3	5.75	50.33
chr20	58837571	58838616	1046	397	26	43.11	4.95	47.29
chr20	61478961	61480371	1411	923	30	42.53	4.03	47.14
chr20	61531602	61532699	1098	813	23	32.64	4.52	49.32
chr20	62751141	62752096	956	689	21	36.17	4.93	46.95
chr20	62917967	62919046	1080	565	25	36.99	8.37	46.95
chr20	62925891	62927106	1216	433	27	42.36	4.93	47.06
chr21	9770282	9772051	1770	1501	44	42.74	5.15	47.42
chr21	9825309	9829569	4261	412	3518	1065.88	5.01	0
chr21	9972324	9975068	2745	1531	102	47.21	4.18	47.74
chr21	10413819	10417091	3273	1122	91	32.2	3.96	49.95
chr21	10442199	10446397	4199	914	131	34.99	3.37	47.61
chr21	10495181	10498103	2923	2208	93	38.43	5.05	46.35
chr21	10501970	10505041	3072	1361	76	32.07	3.42	49.81
chr21	10546134	10549263	3130	1756	90	51.33	4.86	51.54
chr21	10946194	10947356	1163	541	30	38	4.36	46.5
chr21	10965360	10966496	1137	824	27	42.48	5	47.26
chr21	14405050	14406459	1410	688	38	70.58	6.69	54.95
chr21	14469572	14470611	1040	537	24	39.79	8.63	46.64
chr21	15132273	15133085	813	415	21	45.42	5.34	49.67
chr21	15640234	15641286	1053	276	22	31.03	4.93	50.5
chr21	15805493	15806645	1153	559	24	33.76	4.52	48.7
chr21	16401599	16402284	686	265	16	30.55	4.11	51.28
chr21	17251744	17252928	1185	734	29	44.72	5.16	48.86
chr21	17570273	17571411	1139	577	24	34.45	5.75	47.75

chr21	17658294	17659105	812	289	19	32.28	5.71	50.06
chr21	18120413	18121684	1272	598	27	39.38	7.39	46.86
chr21	19229183	19230368	1186	599	28	35.87	5.48	47.03
chr21	19308188	19309107	920	310	20	34.02	4.11	48.52
chr21	19661922	19662769	848	245	19	33.92	4.93	48.7
chr21	19743853	19745335	1483	1224	30	40.39	4.93	46.77
chr21	20118698	20119602	905	559	19	30.73	4.52	50.98
chr21	20804925	20806058	1134	614	25	38.68	5.75	46.16
chr21	21094173	21095002	830	573	19	34.99	4.93	47.59
chr21	21974475	21975356	882	490	20	36.22	4.93	46.99
chr21	22086633	22087637	1005	485	21	33.48	5.34	48.6
chr21	22354313	22355184	872	529	19	32.54	6.16	49.4
chr21	22602644	22603315	672	382	17	36.11	5.75	46.95
chr21	23039007	23039956	950	276	20	32.37	4.11	49.78
chr21	23146568	23147717	1150	618	25	37.82	6.57	46.7
chr21	23539833	23540667	835	490	19	34.69	4.93	47.81
chr21	24160200	24161398	1199	561	32	50.59	5.48	51.78
chr21	24546218	24546953	736	250	17	31.91	5.34	49.82
chr21	24924903	24925734	832	614	18	30.19	4.07	51.69
chr21	25447210	25448064	855	571	20	37.88	5.34	46.61
chr21	25629611	25631070	1460	445	30	41.5	4.52	47.18
chr21	25741022	25741885	864	280	21	41.86	6.16	47.09
chr21	26524178	26525058	881	519	19	32.03	4.93	49.73
chr21	27215686	27216554	869	451	20	37.01	6.57	46.95
chr21	27264432	27265373	942	290	21	36.98	4.52	46.95
chr21	28201684	28203054	1371	671	26	31.08	5.34	50.75
chr21	28268107	28268906	800	296	18	32.44	4.11	49.55
chr21	29217988	29218879	892	284	19	31.43	4.52	50
chr21	29725999	29727030	1032	705	21	31.69	6.12	49.78
chr21	29741591	29742408	818	404	18	31.39	4.93	50.18
chr21	30064510	30065492	983	574	23	38.86	6.16	46.27
chr21	30178060	30178888	829	289	20	30.09	4.79	51.54
chr21	30324252	30325267	1016	347	28	37.99	4.55	46.46
chr21	30333765	30334654	890	286	24	30.76	3.6	50.96
chr21	30512078	30512906	829	326	19	30.22	5.21	51.75
chr21	30590179	30591030	852	455	21	42.67	5.34	47.41
chr21	31215791	31216863	1073	548	27	38.62	4.79	46.11
chr21	31278793	31280357	1565	264	38	47.61	4.79	49.12
chr21	31327767	31329546	1780	1190	35	41.27	5.34	46.93
chr21	31426319	31427475	1157	703	24	33.56	6.57	48.56
chr21	31833103	31834138	1036	450	22	31.88	6.16	49.76
chr21	31855565	31856412	848	580	19	33.92	5.34	48.7
chr21	33156993	33157975	983	288	36	49.72	8.18	51.72
chr21	33185266	33186264	999	256	21	33.79	4.52	48.82
chr21	33775676	33776725	1050	458	21	31.18	4.52	50.55
chr21	33803733	33804610	878	355	19	32.2	4.93	49.92
chr21	33929880	33930712	833	286	18	30.55	4.52	51.23
chr21	34143475	34144827	1353	681	46	41.67	6.42	47.23
chr21	35147479	35148361	883	244	21	30.74	3.77	50.98
chr21	35197150	35198166	1017	337	21	30.05	4.28	51.47
chr21	35422826	35423515	690	475	16	30.3	4.93	51.62
chr21	36168390	36169388	999	285	22	33.79	4.52	48.82

chr21	36238749	36240013	1265	485	31	35.67	5.29	47.18
chr21	36279901	36280789	889	272	20	35.81	4.52	47.08
chr21	36613310	36614267	958	394	21	36.06	4.52	46.97
chr21	37619728	37620683	956	520	20	32.05	5.75	49.81
chr21	37743311	37744672	1362	715	30	46.59	6.57	47.63
chr21	37884185	37885211	1027	674	23	32.12	4.19	49.74
chr21	38301951	38302929	979	626	23	39.1	5.75	46.38
chr21	38553260	38554765	1506	1095	35	46.75	4.84	47.35
chr21	39786470	39787274	805	521	18	32.14	4.93	49.83
chr21	39907962	39908939	978	513	22	34.93	4.93	47.58
chr21	40113562	40115837	2276	1599	82	216.15	22.15	16.67
chr21	40889483	40891122	1640	720	36	45.28	4.57	49.32
chr21	41286647	41287701	1055	283	29	62	6.57	53.94
chr21	41407334	41408558	1225	552	27	41.86	5.75	47.14
chr21	41752656	41753477	822	539	22	44.77	6.98	48.85
chr21	43160856	43162511	1656	266	36	50.91	5.34	51.76
chr21	43299566	43300357	792	469	20	32.38	5.48	49.73
chr21	44386329	44386826	498	249	16	54.21	6.57	53.5
chr21	45449943	45450980	1038	670	21	31.78	5.75	49.85
chr21	45659300	45660149	850	560	20	36.54	6.37	46.96
chr21	45720184	45721874	1691	1202	36	49.12	4.93	50.72
chr21	46305440	46306332	893	413	20	35.57	5.34	47.15
chr21	47400317	47401442	1126	521	31	51.42	6.16	51.63
chr21	47699352	47700194	843	255	20	33.45	3.72	48.62
chr21	47981810	47982539	730	403	17	32.28	4.52	50.02
chr21	48036646	48038114	1469	944	32	48.88	5.34	50.48
chr22	16144258	16146699	2442	888	70	64.97	7.38	54.7
chr22	16185396	16186889	1494	578	43	34.1	4.55	48.14
chr22	16662779	16663500	722	446	19	41.23	6.45	46.77
chr22	16684336	16685237	902	260	19	30.53	4.08	51.26
chr22	16863437	16864776	1340	784	49	59.19	5.94	53.35
chr22	16864866	16865851	986	275	24	34.64	4.64	47.73
chr22	17013973	17015024	1052	714	27	52.49	6.57	50.71
chr22	17019440	17020655	1216	569	24	30.8	5.75	51.01
chr22	17371064	17372491	1428	646	50	38.69	4.64	46.21
chr22	18439121	18439987	867	527	20	36.11	6.04	46.94
chr22	19419116	19420408	1293	774	27	34.19	5	48
chr22	20104318	20105175	858	349	27	36.14	5.53	46.98
chr22	20325246	20326926	1681	1215	145	37.2	3.88	46.92
chr22	21354962	21357743	2782	1253	67	31.88	3.91	49.76
chr22	21368068	21368966	899	542	21	35.35	5.71	47.46
chr22	21671463	21672440	978	267	21	32.07	5.84	49.81
chr22	22539757	22540605	849	505	21	39.14	4.62	46.29
chr22	22710385	22711738	1354	761	28	39.11	4.93	46.27
chr22	22733731	22734863	1133	281	29	42.74	5.14	47.57
chr22	22927403	22928454	1052	562	22	31.08	6.57	50.76
chr22	23182176	23183466	1291	720	33	31.04	5.09	50.53
chr22	23312991	23314275	1285	663	26	34.92	5.34	47.58
chr22	24643672	24644375	704	452	19	43.64	6.98	47.86
chr22	24763052	24764025	974	538	23	33.22	5.16	49.14
chr22	25560001	25560989	989	436	21	34.33	6.16	47.78
chr22	26527233	26528356	1124	384	28	52.28	6.16	51.15

chr22	26794261	26795505	1245	479	26	36.86	5.75	46.77
chr22	26809643	26810489	847	571	19	33.6	4.08	48.69
chr22	27329094	27330876	1783	290	31	34.4	4.11	47.75
chr22	27757324	27758065	742	256	17	31.55	5.34	49.94
chr22	28133363	28134241	879	278	19	32.14	5.75	49.88
chr22	29034359	29035071	713	265	18	34.28	5.71	47.83
chr22	29197128	29198590	1463	289	35	57.6	4.93	54.13
chr22	29275161	29276075	915	687	23	43.1	4.93	47.16
chr22	29646086	29646767	682	391	16	30.8	6.16	51
chr22	30337144	30337972	829	599	19	35.05	6.16	47.49
chr22	30404468	30405425	958	280	24	42.92	5.58	47.44
chr22	30409627	30410574	948	288	21	36.63	5.34	46.89
chr22	30489561	30490628	1068	540	23	33.75	7.75	48.68
chr22	31829476	31830623	1148	489	23	30.26	6.16	51.68
chr22	32024257	32025132	876	283	20	36.58	5.34	46.91
chr22	32046872	32048004	1133	787	28	42.35	5.77	47.09
chr22	33340000	33340427	428	214	17	72.06	6.33	56.84
chr22	33588768	33589766	999	719	27	56.28	4.93	53.99
chr22	34533613	34534388	776	288	21	48.22	6.98	49.56
chr22	34954921	34955705	785	476	18	33.33	5.34	48.72
chr22	34966897	34967892	996	586	21	33.95	6.98	48.63
chr22	35427876	35428847	972	699	22	35.27	6.16	47.3
chr22	36573952	36574718	767	477	17	30.07	5.75	51.5
chr22	36644623	36646165	1543	1139	35	52.97	5.75	50.49
chr22	36901036	36902665	1630	1046	32	40.86	4.93	46.35
chr22	37233080	37233740	661	286	16	32.14	6.16	49.82
chr22	37447390	37448346	957	580	22	36.11	4.52	46.95
chr22	38240536	38241447	912	416	25	34.57	4.01	47.73
chr22	38257808	38260063	2256	1677	46	37.93	5.48	46.59
chr22	38492169	38492966	798	514	18	32.55	5.34	49.31
chr22	38945437	38946219	783	361	21	47.67	6.16	49.25
chr22	38992336	38993269	934	541	20	33.24	5.34	48.96
chr22	39902729	39903312	584	314	21	66.39	8.22	55
chr22	41809826	41811118	1293	748	30	32.14	5.07	49.84
chr22	42295745	42297391	1647	266	33	40.09	4.11	46.58
chr22	42486670	42487873	1204	709	29	51.63	7.39	51.3
chr22	42611200	42612208	1009	269	26	50.74	5.75	51.46
chr22	43175421	43177047	1627	510	34	31.31	4.79	50.32
chr22	43428486	43429772	1287	550	26	34.83	5.34	47.53
chr22	45441398	45442211	814	433	18	31.62	4.93	49.94
chr22	45559051	45560457	1407	713	39	44.57	4.28	48.82
chr22	45617136	45618543	1408	835	33	52.31	5.34	50.77
chr22	45640254	45641079	826	540	18	30.94	4.11	50.56
chr22	46105418	46106463	1046	417	23	34.9	5.71	47.61
chr22	46205509	46206552	1044	439	21	31.48	4.93	49.97
chr22	46518982	46519852	871	291	19	32.59	5.34	49.42
chr22	47468902	47469494	593	326	15	32.02	5.75	49.77
chr22	48264909	48265793	885	327	25	54.97	7.8	53.62
chr22	48407372	48408207	836	462	18	30.38	4.11	51.65
chr22	49163652	49164901	1250	610	31	57.71	5.75	53.89
chr22	49359736	49360730	995	705	21	34.01	5.34	48.54
chr22	50769717	50771317	1601	1137	36	45.45	5.58	49.74

chr22	50888082	50888942	861	630	19	33.16	4.52	49.11
chr3	110820	111934	1115	433	25	39.72	5.34	46.55
chr3	215295	216404	1110	609	25	40	5.34	46.57
chr3	251695	253945	2251	1699	48	44.03	4.79	48.09
chr3	496868	497656	789	502	20	37.5	5.27	46
chr3	605514	606573	1060	486	22	30.69	5.34	51.01
chr3	640103	642318	2216	619	55	36.69	3.42	46.96
chr3	903957	904801	845	439	20	38.52	6.57	46.25
chr3	931267	932218	952	289	24	34.31	4.79	47.83
chr3	1189918	1190776	859	268	20	30.35	3.92	51.59
chr3	1299919	1301460	1542	276	30	37.66	4.52	46.03
chr3	1306713	1308061	1349	778	31	37.84	5.82	46.72
chr3	1377045	1377779	735	450	18	36.53	6.16	46.94
chr3	1913084	1913593	510	255	16	48.45	6.57	49.14
chr3	2382394	2384005	1612	907	37	57.35	4.93	53.77
chr3	2432259	2433127	869	291	19	32.71	5.75	49.41
chr3	3185741	3187725	1985	268	44	43.43	4.11	47.94
chr3	3459232	3459950	719	451	18	37.62	4.93	45.78
chr3	4308277	4309693	1417	1142	35	60.45	4.52	55.84
chr3	4496590	4497623	1034	758	23	35.97	5.75	47.03
chr3	5180044	5182253	2210	591	44	34.47	4.82	47.77
chr3	5336982	5337690	709	222	17	33.61	4.93	48.7
chr3	5491620	5493128	1509	1223	32	35.49	4.24	47.44
chr3	5919875	5920603	729	243	17	32.34	3.7	49.9
chr3	7658456	7659526	1071	597	21	30.16	5.75	51.62
chr3	8323234	8324175	942	270	23	41.36	5.75	46.92
chr3	9544915	9546002	1088	617	24	37.11	5.34	47
chr3	10197095	10197998	904	684	19	30.79	4.52	50.91
chr3	10406430	10407254	825	355	18	30.99	4.52	50.47
chr3	11129377	11130252	876	280	20	36.58	4.93	46.91
chr3	11152639	11153683	1045	291	24	39.5	4.93	47.08
chr3	11662888	11664223	1336	518	31	31.99	4.67	49.84
chr3	11793334	11793991	658	385	16	32.34	6.16	49.93
chr3	12401391	12403727	2337	953	59	45	3.53	48.96
chr3	12405461	12408978	3518	603	83	54.6	3.08	53.89
chr3	12432333	12433521	1189	505	28	35.71	4.79	47.24
chr3	12923652	12924459	808	556	19	36.36	6.16	47.14
chr3	13531320	13532031	712	433	18	38.11	5.75	46.4
chr3	14070253	14071160	908	580	22	39.03	6.98	46.21
chr3	14773823	14774781	959	252	22	36	4.52	47.07
chr3	15371436	15373139	1704	234	34	41.1	4.93	46.34
chr3	15641471	15643955	2485	562	64	47.98	4.21	49.42
chr3	15675797	15676637	841	270	24	44.19	6.42	47.99
chr3	15749506	15751853	2348	357	46	33.75	3.95	48.71
chr3	15776172	15777706	1535	572	31	39.38	3.98	46.91
chr3	16079757	16081998	2242	1532	50	70.55	6.93	54.46
chr3	16327059	16327984	926	242	20	30.94	4.67	50.55
chr3	16441696	16442445	750	291	17	30.21	6.45	51.7
chr3	16859213	16859885	673	402	16	31.37	5.75	50.2
chr3	16888563	16889620	1058	768	25	38.24	4.19	46.27
chr3	16931441	16932756	1316	636	29	32.67	4.11	49.43
chr3	17517548	17518505	958	642	21	33.15	4.28	49.17

chr3	17802785	17804592	1808	1203	46	57.55	4.7	53.83
chr3	18234898	18236367	1470	1203	36	38.02	5.29	46.41
chr3	18389015	18389842	828	251	18	30.83	4.52	50.88
chr3	18423809	18424647	839	533	18	30.22	5.34	51.69
chr3	18889322	18890180	859	370	19	33.28	4.93	48.91
chr3	18939332	18940421	1090	486	24	32.62	4.57	49.42
chr3	19146236	19147408	1173	601	29	53.63	6.57	51.86
chr3	19213423	19214567	1145	493	27	46.47	6.98	48.34
chr3	19657566	19658226	661	265	16	32.14	5.34	49.82
chr3	19985572	19986457	886	695	21	31.08	3.81	50.76
chr3	19987664	19989182	1519	615	34	42.36	5.58	47.01
chr3	20122618	20123467	850	562	19	30.07	4.57	51.53
chr3	21163372	21165712	2341	1992	53	78.18	5.75	56.25
chr3	21393537	21394443	907	378	22	39.09	4.93	46.3
chr3	21829599	21831116	1518	1015	34	36.18	3.77	46.9
chr3	21848723	21849659	937	283	22	37.27	4.52	46.57
chr3	22699114	22699849	736	434	18	36.46	4.93	47.14
chr3	22988025	22989640	1616	271	38	61.34	4.93	53.97
chr3	23323245	23323884	640	349	19	39.01	5.82	46.12
chr3	23475325	23476339	1015	450	21	32.95	5.34	49.29
chr3	24660684	24661699	1016	639	21	32.9	4.93	49.32
chr3	24669037	24669791	755	475	17	30.77	6.16	50.95
chr3	25482903	25483765	863	597	21	41.93	4.93	46.96
chr3	25708759	25709268	510	255	15	37.08	5.46	46.95
chr3	25723199	25725018	1820	527	37	40.31	5.71	46.89
chr3	25889286	25890079	794	392	20	41.94	4.52	46.99
chr3	26090405	26091689	1285	564	29	46.77	5.75	47.38
chr3	26172880	26174274	1395	559	29	40.9	5.75	46.35
chr3	26753321	26754288	968	423	23	39.75	6.98	46.68
chr3	27427030	27428431	1402	607	32	38.57	4.11	46.22
chr3	27884875	27885648	774	509	18	34.01	4.93	48.55
chr3	28168640	28169556	917	687	20	32.01	4.72	49.76
chr3	28315226	28316074	849	246	20	36.6	4.38	46.87
chr3	28404516	28405302	787	416	20	42.43	6.57	47.3
chr3	28563526	28564530	1005	777	23	34.54	5.06	47.75
chr3	28765690	28767068	1379	421	29	36.48	4.57	47.05
chr3	29324682	29325438	757	423	17	30.65	4.11	51.07
chr3	29933521	29934460	940	254	23	41.48	5.75	47.04
chr3	30323593	30325052	1460	947	31	45.37	4.11	49.53
chr3	30813343	30813927	585	288	15	32.59	5.34	49.35
chr3	30815402	30816320	919	280	21	38.35	4.93	46.36
chr3	30847885	30848782	898	277	20	35.28	4.52	47.36
chr3	30896037	30896913	877	352	19	32.26	5.34	49.99
chr3	31378713	31380614	1902	882	50	83.31	6.13	51.11
chr3	32078938	32080487	1550	1042	36	56.73	5.75	53.4
chr3	32815867	32816757	891	666	19	31.48	5.34	49.85
chr3	33478930	33480066	1137	445	30	32.04	4.73	49.75
chr3	33699531	33701096	1566	725	39	42.08	5.55	46.94
chr3	34097959	34099297	1339	857	31	38.36	3.77	46.41
chr3	34484870	34486100	1231	668	24	30.13	5.75	51.66
chr3	34515658	34516651	994	562	20	30.11	5.34	51.59
chr3	34600423	34601381	959	409	20	31.9	4.52	49.83

chr3	34718453	34719588	1136	573	25	34.64	5.39	47.65
chr3	34853186	34854231	1046	806	21	31.38	4.52	50.17
chr3	34856070	34856612	543	271	17	43.16	6.32	47.42
chr3	35037391	35038671	1281	569	26	35.11	7.8	47.42
chr3	35510681	35511710	1030	742	21	32.18	6.16	49.95
chr3	35692774	35693808	1035	715	21	31.93	4.11	49.77
chr3	35948957	35949969	1013	438	22	33.06	6.16	49.12
chr3	36083273	36084219	947	698	20	32.53	4.52	49.43
chr3	36256362	36257135	774	277	18	34.01	6.16	48.55
chr3	36346980	36347793	814	270	20	40.56	4.93	46.89
chr3	37375218	37376517	1300	1029	30	36.9	4.11	46.71
chr3	37417124	37418755	1632	1020	38	30.97	4.06	50.45
chr3	39059172	39060076	905	389	20	30.97	5.33	50.44
chr3	39360594	39362705	2112	591	45	32.68	4.98	49.37
chr3	39520282	39521111	830	593	18	30.71	4.52	50.99
chr3	39817740	39818685	946	250	21	31.48	4.09	49.89
chr3	40282360	40283265	906	527	20	32.62	5.9	49.44
chr3	40517454	40518664	1211	717	26	33.89	4.95	48.58
chr3	40977414	40978224	811	581	20	40.76	6.57	46.5
chr3	41035805	41037233	1429	284	30	43.05	5.34	47.34
chr3	41186746	41187471	726	243	17	32.53	4.93	49.39
chr3	41405935	41406900	966	488	20	31.53	4.52	49.91
chr3	41744475	41745569	1095	575	25	40.85	4.93	46.35
chr3	41799212	41800124	913	652	20	34.41	4.52	47.76
chr3	41841975	41842881	907	616	22	38.67	7.75	46.12
chr3	42321605	42322359	755	382	17	30.77	5.75	50.95
chr3	42412026	42412985	960	465	20	31.84	6.57	49.73
chr3	42610237	42611194	958	703	21	36.06	4.11	46.97
chr3	43309611	43310514	904	377	19	30.79	4.93	50.91
chr3	43710503	43711422	920	574	20	34.02	5.34	48.52
chr3	43975237	43976215	979	544	24	43.5	5.34	48.12
chr3	44148661	44149643	983	746	21	30.64	4.19	51.16
chr3	44348089	44349442	1354	1170	32	49.28	3.81	50.96
chr3	44363589	44364513	925	466	21	37.99	4.93	46.41
chr3	44841645	44843359	1715	861	41	68.32	5.75	54.48
chr3	45268062	45269274	1213	611	25	34.62	6.57	47.82
chr3	45323945	45324689	745	281	17	31.37	5.34	50.22
chr3	45582998	45584004	1007	316	23	31.42	5.16	50.13
chr3	45882299	45883411	1113	495	25	39.83	6.16	46.65
chr3	45888187	45889134	948	616	20	32.48	6.57	49.47
chr3	46110198	46111497	1300	523	26	34.22	4.93	47.93
chr3	46382974	46384005	1032	476	24	40.26	6.98	46.78
chr3	46419150	46420859	1710	1084	40	62.36	6.45	54.98
chr3	46769844	46770607	764	421	18	34.64	5.34	47.73
chr3	47078843	47079507	665	287	19	34.42	5.21	47.81
chr3	47161540	47166279	4740	4114	122	35.98	3.54	47.07
chr3	47338701	47339536	836	552	19	31.41	5	50.17
chr3	48180037	48180767	731	313	17	32.22	5.75	49.98
chr3	48214130	48215319	1190	631	27	41.73	5.18	47.23
chr3	48565141	48566334	1194	529	24	31.8	5.75	49.8
chr3	48790462	48791289	828	538	19	35.11	5.75	47.37
chr3	48884461	48886076	1616	551	37	30.13	3.84	51.66



chr3	49014343	49015572	1230	551	26	32.96	4.57	49.29
chr3	49502865	49503754	890	534	23	44.32	6.12	48.25
chr3	49877327	49878081	755	483	17	30.77	4.52	50.95
chr3	50061326	50062351	1026	486	21	32.38	6.98	49.71
chr3	50226027	50226826	800	461	18	32.44	5.75	49.55
chr3	50328261	50330064	1804	1041	42	48.97	5.14	50.43
chr3	50830459	50831298	840	266	21	43.5	4.52	48.04
chr3	51434814	51435584	771	274	19	34.42	5.28	47.8
chr3	51819079	51820251	1173	562	25	36.62	4.93	46.95
chr3	51978915	51979654	740	450	18	35.25	6.04	47.28
chr3	52001744	52002292	549	274	15	37.66	6.16	46.06
chr3	52009535	52010940	1406	661	37	31.94	4.21	49.76
chr3	52613879	52614780	902	243	22	33.99	4.47	48.55
chr3	52662450	52663376	927	386	29	38.46	4.48	46.39
chr3	52702282	52703822	1541	271	38	64.81	5.28	53.48
chr3	53363176	53364392	1217	681	28	31.19	4.89	50.51
chr3	53503718	53504773	1056	486	21	30.5	6.12	51.28
chr3	53518624	53519605	982	291	20	30.71	4.11	51.01
chr3	53564896	53565854	959	623	20	31.9	4.52	49.83
chr3	53744125	53745027	903	627	21	39.34	6.16	46.61
chr3	55107962	55108804	843	280	19	34.21	5.75	47.87
chr3	55278202	55279031	830	286	20	39.49	4.52	47
chr3	55433903	55434707	805	527	18	32.14	4.52	49.83
chr3	55704861	55705714	854	576	19	33.57	7.39	48.6
chr3	56093236	56093841	606	324	15	31.13	5.75	50.65
chr3	56424608	56425899	1292	498	29	33.85	5.82	48.72
chr3	56695775	56697738	1964	758	50	64.38	4.41	54.69
chr3	57173961	57174894	934	647	22	37.45	6.57	46.33
chr3	57575484	57577372	1889	699	44	34.09	3.81	48.18
chr3	58124002	58124795	794	527	19	37.25	4.93	46.46
chr3	58223316	58224524	1209	515	27	30.6	5.76	51.21
chr3	58319114	58321618	2505	573	60	33.74	3.32	48.65
chr3	58888963	58889812	850	382	20	34.15	4.95	47.99
chr3	59277862	59278467	606	345	15	31.13	5.34	50.65
chr3	59795754	59796618	865	577	19	32.93	5.34	49.39
chr3	61921672	61922480	809	398	19	36.29	5.34	46.98
chr3	62174110	62175256	1147	653	27	46.35	6.57	48.36
chr3	62521461	62522327	867	285	19	32.82	4.93	49.42
chr3	63364128	63365185	1058	519	21	30.79	5.34	50.99
chr3	63367472	63368653	1182	568	24	32.36	6.16	49.81
chr3	63540863	63542285	1423	721	28	31.05	7.99	50.75
chr3	64103234	64104170	937	463	21	37.27	4.52	46.57
chr3	64565981	64566638	658	341	16	32.34	5.34	49.93
chr3	66653610	66654238	629	347	18	35.25	5.14	47.28
chr3	66734645	66736706	2062	563	40	35.38	4.7	47.59
chr3	66980488	66983113	2626	1831	60	31.35	3.66	50.23
chr3	67151057	67153212	2156	1003	47	63.98	6.15	53.77
chr3	67381366	67382877	1512	248	30	39.02	4.52	46.2
chr3	67871875	67872828	954	447	20	32.16	5.34	49.86
chr3	67873667	67875168	1502	1008	33	47.12	5.34	47.5
chr3	68214271	68215284	1014	315	21	33	4.52	49.18
chr3	68730328	68731621	1294	795	29	46.26	5.34	48.61

chr3	69090213	69092128	1916	1299	38	32.84	4.54	49.38
chr3	69780415	69781399	985	467	23	38.74	4.93	46.15
chr3	69938168	69939162	995	748	21	34.01	4.93	48.54
chr3	70086028	70086918	891	289	19	31.48	5.34	49.85
chr3	70640607	70641541	935	288	22	37.39	6.16	46.67
chr3	70669137	70671343	2207	1752	53	75.9	6.47	56.76
chr3	70683744	70684542	799	515	21	41.96	4.95	47.05
chr3	70798174	70799097	924	280	20	33.79	5.75	48.76
chr3	71050890	71051996	1107	386	26	31.79	4.36	49.79
chr3	71259369	71260251	883	413	23	33.53	5.37	48.67
chr3	71288801	71290002	1202	697	33	31.02	3.69	50.52
chr3	71392785	71393737	953	607	25	34.69	4.52	47.79
chr3	71621041	71623124	2084	545	52	34.6	3.83	47.76
chr3	71869581	71871004	1424	804	31	47.28	5.34	48.06
chr3	72169740	72170514	775	500	20	43.3	5.75	48.08
chr3	72313943	72314907	965	472	21	31.59	5.33	50.02
chr3	72417732	72418855	1124	776	23	31.38	5.34	50.22
chr3	72927004	72928296	1293	685	26	34.1	7.34	48.18
chr3	72999452	73000485	1034	678	21	31.98	6.57	49.84
chr3	73067935	73069271	1337	651	34	32.27	4	50.06
chr3	73133851	73134750	900	588	19	31	4.93	50.47
chr3	73426945	73427707	763	472	22	44.65	4.95	48.91
chr3	73487708	73488328	621	290	15	30.14	5.34	51.64
chr3	73533569	73535285	1717	976	40	32.08	3.74	49.7
chr3	73740809	73741641	833	464	20	39.29	5.75	46.52
chr3	73785422	73786114	693	285	16	30.12	5.75	51.63
chr3	73812183	73813082	900	291	19	31	4.93	50.47
chr3	74490155	74490790	636	348	16	30.51	4.57	51.3
chr3	74747705	74748689	985	708	22	34.55	4.52	47.78
chr3	75085698	75087107	1410	697	30	31.51	5.48	49.89
chr3	75152334	75153228	895	613	19	31.27	3.7	50.46
chr3	76047253	76048750	1498	280	32	47.33	4.52	48.18
chr3	76090212	76092169	1958	628	48	32.77	3.95	49.44
chr3	76348687	76349379	693	273	16	30.12	6.16	51.63
chr3	76566000	76567726	1727	289	32	36.65	3.7	46.98
chr3	77709149	77709916	768	437	17	30.01	4.93	51.49
chr3	78010701	78011940	1240	630	25	30.91	5.9	50.65
chr3	78039355	78040189	835	488	22	33.66	5.48	48.64
chr3	78083592	78085177	1586	587	45	45.95	4.35	49.61
chr3	78096507	78098159	1653	1171	46	50.07	5.71	51.72
chr3	78126586	78127533	948	664	21	34.32	4.72	47.8
chr3	78235531	78236161	631	283	17	38.19	6.04	46.3
chr3	78589035	78589652	618	286	17	40.13	6.57	46.71
chr3	79256530	79257527	998	495	23	37.98	4.52	46.41
chr3	79751687	79752579	893	633	19	31.38	4.11	50.16
chr3	79846586	79847564	979	268	20	30.86	4.93	50.91
chr3	79945498	79947778	2281	658	44	30.75	4.07	50.97
chr3	79982685	79983976	1292	609	28	42.29	6.98	47.33
chr3	80036605	80038350	1746	1464	35	30.12	4.84	51.64
chr3	80183199	80184921	1723	513	39	54.24	4.28	54.32
chr3	80381538	80382911	1374	713	29	41.96	6.16	47.1
chr3	80401745	80402733	989	366	20	30.36	5.75	51.62

chr3	80535333	80536206	874	264	22	41.2	4.93	46.62
chr3	80781372	80783176	1805	1126	43	41.07	4.4	46.37
chr3	80871008	80872284	1277	632	29	35.93	4.19	47.08
chr3	80983954	80985660	1707	1118	35	44.58	4.11	48.95
chr3	81131543	81133368	1826	1201	42	65.98	6.98	54.17
chr3	81133531	81134289	759	303	18	34.95	6.57	47.68
chr3	81154119	81155092	974	685	22	35.16	5.34	47.17
chr3	81187245	81188158	914	244	22	34.46	4.57	47.78
chr3	81335613	81336342	730	306	19	41.68	5.75	47.15
chr3	81631389	81632982	1594	932	36	33.35	3.81	48.67
chr3	81664713	81665741	1029	752	26	44.19	4.95	48.05
chr3	81901513	81902389	877	639	19	32.26	4.11	49.99
chr3	82068304	82069298	995	342	20	30.06	4.11	51.48
chr3	82318504	82319333	830	426	18	30.71	5.34	50.99
chr3	82756843	82758098	1256	508	26	36.32	5.75	47.01
chr3	82774424	82775277	854	575	21	32.47	4.45	49.49
chr3	82927815	82928565	751	243	21	50.21	5.75	51.57
chr3	83033730	83035061	1332	647	26	32.77	6.57	49.42
chr3	83085420	83086377	958	310	21	36.06	6.57	46.97
chr3	83118067	83118954	888	451	22	40.29	5.75	46.88
chr3	83252974	83253640	667	276	16	31.75	4.52	49.79
chr3	84718254	84719323	1070	450	25	42.31	4.11	47.42
chr3	84816656	84817573	918	512	24	47.58	6.57	48.99
chr3	84820272	84821236	965	365	20	31.58	4.52	50
chr3	85666663	85667406	744	391	18	35.93	6.16	47.06
chr3	85959494	85960615	1122	607	23	31.48	4.93	49.91
chr3	86060210	86061139	930	639	22	37.69	4.93	46.43
chr3	86362813	86363509	697	416	18	39.18	4.93	46.27
chr3	86950313	86951249	937	654	21	37.27	4.93	46.57
chr3	87346961	87348184	1224	665	31	32.02	3.42	49.79
chr3	87719289	87720331	1043	268	22	31.53	4.93	49.89
chr3	87803618	87804399	782	401	18	33.52	5.34	48.58
chr3	87830753	87831933	1181	514	28	48.64	5.75	50
chr3	87897297	87898513	1217	775	29	47.64	5.9	49.16
chr3	87899268	87900584	1317	680	28	40.47	5.3	46.98
chr3	88119525	88120741	1217	509	30	49.33	4.95	51.25
chr3	88335921	88336748	828	184	18	30.83	4.11	50.88
chr3	88702977	88703788	812	527	18	31.74	6.16	49.76
chr3	89382788	89383745	958	433	21	36.06	5.34	46.97
chr3	89607038	89608035	998	710	22	33.85	6.16	48.73
chr3	90061881	90062716	836	298	18	30.38	4.52	51.65
chr3	90181316	90182292	977	563	22	30.95	6.09	50.54
chr3	93512658	93513786	1129	690	26	31.8	4.11	49.81
chr3	93693212	93694243	1032	539	25	34.03	4.84	48.58
chr3	93729519	93730802	1284	621	27	30.67	3.97	51.07
chr3	93771036	93772509	1474	527	32	31.02	4.52	50.48
chr3	93780961	93782651	1691	848	45	41.41	4.41	47.02
chr3	94148397	94149164	768	284	20	43.81	6.57	47.85
chr3	94821836	94822932	1097	534	24	36.62	6.16	46.95
chr3	94850893	94852161	1269	648	26	35.69	6.98	47.21
chr3	94907027	94907886	860	267	22	42.13	6.57	46.79
chr3	95096335	95097099	765	475	17	30.19	5.75	51.7

chr3	95148754	95149657	904	340	19	30.79	4.11	50.91
chr3	95363491	95364387	897	506	21	39.72	5.34	46.59
chr3	95615110	95616181	1072	430	21	30.12	4.52	51.63
chr3	96068420	96069736	1317	778	26	33.44	4.93	48.6
chr3	96463942	96465421	1480	1001	30	40.53	4.11	46.86
chr3	96653090	96653905	816	476	18	31.51	4.52	49.84
chr3	96690005	96690789	785	521	18	33.33	4.52	48.72
chr3	96944875	96946159	1285	531	33	59.98	6.16	55.99
chr3	97463153	97464575	1423	879	33	51.44	5.75	51.78
chr3	97664422	97665035	614	341	15	30.6	5.34	51.25
chr3	98291295	98292153	859	285	23	46.96	5.34	47.57
chr3	99799978	99800724	747	477	17	30.39	4.83	51.62
chr3	100162539	100163399	861	255	19	31.64	4.78	49.9
chr3	100283900	100285039	1140	597	23	30.63	4.93	51.19
chr3	100316807	100317698	892	254	21	30.22	4.11	51.75
chr3	100557493	100558538	1046	385	23	31.14	5.33	50.63
chr3	101545445	101547097	1653	663	35	41.95	4.23	47.08
chr3	102066194	102066963	770	478	18	34.26	5.34	47.87
chr3	102166808	102168067	1260	653	30	52.56	5.75	50.32
chr3	102585172	102586053	882	610	20	35.21	5.24	47.17
chr3	102598399	102599353	955	678	20	32.11	4.93	49.7
chr3	102818389	102819128	740	256	17	31.67	5.75	49.82
chr3	103220473	103221708	1236	749	25	30.45	5.84	51.29
chr3	103229396	103231169	1774	1323	38	52.64	4.93	50.4
chr3	103517139	103518204	1066	512	24	33.87	5.33	48.64
chr3	104283983	104285264	1282	742	27	37.62	5.24	45.83
chr3	104475774	104476985	1212	531	27	42.58	6.57	47.11
chr3	104601234	104602150	917	279	23	42.97	5.34	47.47
chr3	104932815	104933535	721	357	20	47.44	6.98	48.56
chr3	104985571	104986371	801	514	20	41.45	5.34	47.03
chr3	105139509	105140083	575	287	15	32.66	6.16	49.32
chr3	105160325	105161397	1073	291	21	30.07	6.16	51.46
chr3	105237758	105238754	997	578	26	39.39	4.79	46.93
chr3	105253781	105254666	886	478	19	31.76	4.52	49.79
chr3	105425425	105426502	1078	552	25	37.1	4.57	46.98
chr3	105644560	105645435	876	380	20	36.58	6.16	46.91
chr3	105722363	105723674	1312	505	28	35.12	5.24	47.38
chr3	105841887	105842590	704	334	18	38.67	6.57	46.15
chr3	105899800	105900978	1179	313	27	44.45	4.52	48.55
chr3	106396357	106397912	1556	1267	34	44.84	5.12	48.81
chr3	106751093	106752360	1268	417	26	35.73	4.52	47.18
chr3	107024592	107026197	1606	1320	34	45.71	5.34	49.81
chr3	107139583	107141877	2295	420	56	37.31	3.75	46.7
chr3	107203073	107204199	1127	626	24	35.06	6.16	47.45
chr3	107336468	107338782	2315	1819	67	60.95	4.93	54.51
chr3	107539721	107540568	848	243	19	33.92	4.11	48.7
chr3	107793054	107794428	1375	822	35	53.48	7.36	52
chr3	108000928	108001616	689	351	17	30.46	5.21	51.29
chr3	108069205	108070498	1294	587	29	46.26	6.16	48.61
chr3	108268406	108269091	686	398	18	36.71	6.16	46.97
chr3	108335115	108336151	1037	577	24	39.97	6.98	46.76
chr3	108351381	108352487	1107	407	23	31.17	5.64	50.55

chr3	108506488	108507510	1023	592	21	32.54	4.93	49.37
chr3	108576686	108577564	879	597	21	40.87	4.93	46.32
chr3	109863852	109864807	956	568	20	32.05	4.93	49.81
chr3	110417341	110418147	807	258	18	32.02	4.52	49.75
chr3	110518195	110519142	948	727	22	32.52	4.95	49.4
chr3	111272656	111275084	2429	1489	59	64.74	5.66	53.19
chr3	111284350	111285165	816	273	20	40.42	4.93	46.89
chr3	111409099	111410326	1228	836	28	33.65	4.45	48.63
chr3	111922171	111923151	981	697	23	38.98	4.93	46.13
chr3	111958966	111959757	792	256	19	37.38	4.93	46.63
chr3	112029766	112030860	1095	481	24	32.36	5.33	49.82
chr3	112531909	112534511	2603	1229	61	31.87	5.35	49.74
chr3	112784956	112785819	864	281	19	31.47	5.97	49.98
chr3	112838570	112839402	833	599	18	30.55	4.52	51.23
chr3	113121959	113123170	1212	599	27	42.58	5.75	47.11
chr3	114028267	114029281	1015	736	25	45.71	5.75	49.85
chr3	114154096	114155136	1041	440	21	31.63	5.75	49.91
chr3	114330198	114331491	1294	629	26	34.5	6.16	47.65
chr3	114454449	114455677	1229	637	25	32.74	4.43	49.37
chr3	114698593	114699603	1011	583	23	37.24	5.34	46.69
chr3	114858918	114859714	797	334	19	37.06	6.16	46.98
chr3	115929541	115930485	945	469	20	32.64	4.93	49.32
chr3	116351344	116352370	1027	644	25	44.94	5.75	48.76
chr3	116476110	116477855	1746	276	31	35.87	4.52	47.04
chr3	116599576	116600640	1065	266	23	30.19	4.57	51.73
chr3	117673161	117674119	959	329	27	53.66	7.99	52.04
chr3	117734063	117735092	1030	644	21	32.18	5.34	49.95
chr3	118144082	118145538	1457	661	33	40.28	5.1	46.87
chr3	118697792	118698579	788	517	19	37.65	4.52	45.95
chr3	119170181	119171295	1115	347	28	49.73	5.51	51.91
chr3	119696433	119697485	1053	327	26	42.67	7.23	47.43
chr3	119755821	119756905	1085	603	23	30.39	5.06	51.62
chr3	119835994	119836874	881	478	20	35.89	5.3	46.98
chr3	119928057	119929542	1486	246	31	44.03	4.52	48.12
chr3	119930064	119930704	641	289	18	30.19	5.33	51.69
chr3	119970836	119972481	1646	637	38	59.59	4.93	55.59
chr3	120034062	120034977	916	267	19	30.15	4.93	51.66
chr3	120324377	120325310	934	474	20	33.24	4.52	48.96
chr3	120679236	120680082	847	320	20	34.34	4.57	47.88
chr3	120771483	120772632	1150	678	30	51.17	5.52	51.59
chr3	120896682	120897686	1005	433	21	33.48	4.93	48.6
chr3	120915007	120916620	1614	954	36	46.61	6.09	47.51
chr3	120937419	120938067	649	281	16	32.94	5.34	49.39
chr3	121148278	121149581	1304	702	32	30.92	4.28	50.58
chr3	121187928	121189301	1374	416	32	48.12	4.95	49.37
chr3	121454776	121455762	987	305	26	36.38	5.49	47.17
chr3	121785678	121787121	1444	695	39	42.35	5.42	47.06
chr3	121790972	121791729	758	284	20	33.11	4.32	49.19
chr3	121923629	121924688	1060	423	23	30.44	4.57	51.3
chr3	121924692	121925909	1218	543	25	30.01	4.95	51.47
chr3	121971397	121972378	982	258	24	32.56	4.45	49.35
chr3	122082339	122083402	1064	680	26	47.08	5.75	47.5

chr3	122390420	122391954	1535	1123	31	31.81	3.57	49.84
chr3	122431121	122432429	1309	782	30	39.98	5.41	46.85
chr3	122539574	122540321	748	531	18	30.19	4.03	51.73
chr3	122924606	122925776	1171	786	28	35.42	6.04	47.49
chr3	122937599	122938620	1022	291	23	34.24	5.12	47.92
chr3	124070320	124071023	704	394	19	39.54	6.09	46.86
chr3	124647618	124648810	1193	560	26	34.79	4.57	47.56
chr3	124812947	124814111	1165	635	31	54.52	6.26	54.35
chr3	125690996	125691667	672	385	16	31.43	4.93	50.09
chr3	126341910	126342838	929	288	24	46.81	6.98	47.33
chr3	126528835	126529496	662	415	16	32.08	4.93	49.79
chr3	127007925	127008734	810	363	19	36.23	4.93	46.97
chr3	127659539	127660634	1096	385	26	38	5.16	46.49
chr3	127661169	127662309	1141	655	24	34.35	5.34	47.85
chr3	127754867	127755747	881	594	20	36.28	4.11	46.9
chr3	127837921	127839147	1227	557	30	51.31	6.3	51.4
chr3	128160818	128162135	1318	685	26	33.4	6.16	48.7
chr3	128263917	128264798	882	638	21	40.68	4.93	46.47
chr3	128470871	128472047	1177	494	29	39.39	6.1	46.91
chr3	129500427	129501719	1293	665	27	33.5	6.47	48.65
chr3	129808004	129808934	931	461	22	34.68	6.23	47.78
chr3	130435392	130436231	840	251	22	33.34	4.79	48.68
chr3	130611734	130613987	2254	826	54	32.63	4.48	49.38
chr3	130837648	130838863	1216	740	25	34.48	4.93	47.74
chr3	130911154	130911956	803	540	19	36.67	4.93	47.02
chr3	131139655	131140647	993	314	23	38.27	6.57	46.26
chr3	131198378	131199029	652	274	16	30.9	5.9	50.67
chr3	131206519	131208127	1609	670	38	40.36	4.85	46.92
chr3	131472506	131473980	1475	544	32	48.56	4.93	49.54
chr3	132260447	132261305	859	243	20	31.94	4.05	49.75
chr3	132820106	132821020	915	336	19	30.21	3.7	51.69
chr3	132868902	132869657	756	476	18	30.99	5.27	50.48
chr3	132874074	132875224	1151	638	31	49.69	5.14	51.42
chr3	133001238	133002712	1475	1004	33	34.95	4.11	47.67
chr3	133052048	133053239	1192	522	28	47.97	5.75	49.38
chr3	133105195	133105880	686	279	17	30.18	4.79	51.65
chr3	133127796	133129006	1211	678	29	51.19	5.75	51.8
chr3	133309075	133310481	1407	603	39	32.09	3.91	49.72
chr3	133317061	133318216	1156	576	24	30.61	5.06	51.19
chr3	133342841	133343611	771	280	23	45.57	6.49	50.11
chr3	135158433	135159278	846	573	19	34.03	4.93	48.53
chr3	135325116	135325897	782	271	18	33.52	5.75	48.58
chr3	135622428	135623557	1130	642	29	56.53	6.98	53.46
chr3	135670259	135671162	904	472	22	39.28	6.57	46.47
chr3	136522869	136523978	1110	629	24	35.94	6.16	47.08
chr3	136588427	136589241	815	428	22	45.28	5.75	49.18
chr3	136594741	136595923	1183	638	28	30.09	4.98	51.55
chr3	136677787	136678629	843	477	20	34.58	5.71	47.72
chr3	136679188	136680421	1234	608	28	44.97	5.3	48.89
chr3	136720280	136722102	1823	505	38	30.72	4.2	51.03
chr3	137346631	137348207	1577	1031	30	36.12	4.52	46.98
chr3	137354583	137355655	1073	324	23	33.9	5.34	48.62

chr3	137363403	137364763	1361	745	28	38.77	5.75	46
chr3	137920653	137921608	956	315	22	36.17	5.34	46.95
chr3	138197898	138198995	1098	481	24	32.21	5.71	49.95
chr3	138264108	138265094	987	463	21	31.59	5.06	49.99
chr3	138477346	138478598	1253	686	26	31.22	4.89	50.53
chr3	138500832	138502552	1721	637	37	36.44	3.77	47.18
chr3	139315038	139315738	701	428	17	34.14	5.34	48.03
chr3	140571675	140572660	986	696	23	38.68	5.75	46.15
chr3	141435345	141436546	1202	638	24	30.38	4.83	51.65
chr3	141682007	141683292	1286	641	28	42.61	6.98	47.35
chr3	141760718	141761616	899	579	19	31.05	4.11	50.69
chr3	142127114	142128642	1529	978	32	32.48	4.11	49.49
chr3	142231549	142233069	1521	734	37	35.86	5.11	47.03
chr3	142237520	142238461	942	324	23	31.64	4.5	49.91
chr3	142260804	142262022	1219	739	31	43.04	4.32	47.48
chr3	142312946	142314980	2035	543	42	54.16	5.3	53.18
chr3	142431600	142432836	1237	514	30	54.01	6.57	52.76
chr3	142545734	142546842	1109	570	33	31.45	5.38	50
chr3	142687775	142688630	856	593	19	33.45	4.11	48.63
chr3	143066689	143067840	1152	376	26	32.4	4.24	49.68
chr3	143127165	143127951	787	350	20	33.21	4.5	49.14
chr3	143219056	143220282	1227	623	25	33.95	5.75	48.63
chr3	143709599	143711584	1986	774	46	49.95	4.79	51.76
chr3	143807174	143808571	1398	709	32	52.89	5.34	50.49
chr3	144305970	144306686	717	335	19	42.65	6.57	47.36
chr3	144843695	144844631	937	684	20	33.07	5.34	49.17
chr3	144920390	144921444	1055	735	23	34.84	6.98	47.54
chr3	144999749	145000607	859	251	21	42.2	4.93	47.07
chr3	145149473	145150384	912	528	20	30.58	5.33	51.23
chr3	145242749	145243875	1127	805	23	31.24	5.34	50.47
chr3	145451740	145452906	1167	604	24	33.08	4.93	49.14
chr3	145556430	145557328	899	275	21	39.59	5.34	46.6
chr3	145560775	145561458	684	216	17	35.28	4.93	47.37
chr3	145928646	145929556	911	418	20	34.53	5.34	47.68
chr3	146108798	146109459	662	388	17	36.82	4.93	46.81
chr3	146116046	146116968	923	288	22	34.54	4.62	47.73
chr3	146456194	146457039	846	272	20	38.45	5.75	46.34
chr3	146714043	146715030	988	513	22	34.39	4.52	47.77
chr3	147670844	147671666	823	539	18	31.11	4.52	50.68
chr3	147782471	147783439	969	560	23	39.69	7.39	46.52
chr3	147809257	147810277	1021	775	21	32.64	4.93	49.3
chr3	147988077	147989044	968	527	24	44.21	5.34	48.05
chr3	148404287	148404944	658	375	16	32.34	6.16	49.93
chr3	148509773	148510650	878	605	19	32.2	4.93	49.92
chr3	148553412	148554182	771	262	19	38.78	4.93	46.03
chr3	148880201	148881485	1285	863	34	57.89	4.57	53.26
chr3	149017107	149017765	659	234	16	32.27	4.93	50.06
chr3	149028750	149029667	918	229	20	34.13	6.16	48.07
chr3	149644137	149645134	998	254	23	33.68	4.57	48.6
chr3	149713080	149713954	875	633	21	31.21	4.11	50.56
chr3	149831277	149832565	1289	838	26	34.73	5.75	47.63
chr3	149943636	149944472	837	567	19	31.9	5.45	49.86

chr3	150250857	150252509	1653	281	38	51.12	6.02	51.71
chr3	150298291	150299950	1660	1139	35	41.62	4.62	47.11
chr3	150647996	150649056	1061	446	23	34.52	6.16	47.75
chr3	150784087	150784860	774	260	19	38.58	4.93	46.14
chr3	150983959	150984852	894	605	21	31.67	4.59	49.85
chr3	151170951	151172005	1055	402	22	30.94	5.34	50.6
chr3	151386911	151387813	903	288	19	30.84	4.52	50.85
chr3	151708662	151709669	1008	378	21	33.32	6.16	48.74
chr3	151793821	151794560	740	260	18	31.99	4.89	49.86
chr3	151939458	151941078	1621	701	38	42.11	6.98	46.94
chr3	152017044	152019019	1976	1688	47	40.96	3.91	46.3
chr3	152140993	152141989	997	432	22	30.49	4.62	51.28
chr3	152604803	152605807	1005	388	21	33.48	6.57	48.6
chr3	152744099	152745246	1148	473	24	34	5.75	48.56
chr3	153453771	153455297	1527	355	31	42.01	4.93	47.05
chr3	153497453	153498758	1306	552	26	33.94	6.98	48.68
chr3	153776517	153777519	1003	490	21	33.58	4.52	48.66
chr3	154272321	154273214	894	607	20	35.51	4.52	47.23
chr3	154745096	154745932	837	343	18	30.33	4.93	51.59
chr3	155213054	155214348	1295	855	30	50.43	4.93	52
chr3	156806001	156808062	2062	1401	44	52.15	3.95	51.13
chr3	156955961	156957469	1509	380	31	42.89	4.11	47.37
chr3	158043654	158045046	1393	714	30	40.2	7.7	46.65
chr3	158161491	158162344	854	589	19	33.57	4.52	48.6
chr3	158241118	158242571	1454	764	30	36.45	5.33	47.16
chr3	158832937	158834093	1157	632	24	33.56	5.34	48.56
chr3	159213829	159214546	718	332	17	33.04	4.93	49.11
chr3	159772555	159773486	932	643	21	37.57	4.93	45.87
chr3	160124692	160126202	1511	1007	40	37.04	3.78	46.98
chr3	160179549	160180588	1040	466	24	37.26	5.9	46.47
chr3	160404035	160405990	1956	1208	45	48.08	4.79	49.32
chr3	160497451	160498182	732	272	21	51.8	4.93	50.95
chr3	161107390	161108398	1009	492	21	33.26	5.34	48.94
chr3	161146644	161147879	1236	591	40	79.34	9.93	61.4
chr3	161219094	161220332	1239	574	25	33.38	5.75	48.69
chr3	161646885	161647685	801	532	18	32.38	4.93	49.75
chr3	162017865	162018837	973	271	23	35.09	6.09	47.33
chr3	162217650	162218941	1292	1004	34	64.17	6.16	53.85
chr3	162741641	162742607	967	452	20	31.48	4.11	50
chr3	162807714	162808644	931	477	22	33.48	5.33	48.65
chr3	162929159	162929983	825	414	21	44.55	7.39	48.76
chr3	163173453	163174437	985	390	20	30.56	5.75	51.26
chr3	163431177	163432278	1102	411	27	39.54	5.71	46.84
chr3	163492690	163493556	867	668	20	37.13	4.52	46.94
chr3	164698326	164699162	837	495	18	30.33	4.52	51.59
chr3	164817551	164818436	886	208	19	31.76	4.93	49.79
chr3	165253850	165254530	681	367	19	45.46	4.93	49.78
chr3	165867358	165868526	1169	689	24	32.98	5.75	49.22
chr3	166398832	166399861	1030	393	23	36.18	5.34	46.84
chr3	166467683	166469335	1653	1380	32	30.24	4.11	51.75
chr3	166551591	166552384	794	505	18	32.79	5.34	49.41
chr3	166824466	166825320	855	592	21	38.12	5.71	46.33



chr3	166828289	166828982	694	246	16	30.06	4.93	51.46
chr3	167601679	167602890	1212	494	24	30.98	4.93	50.44
chr3	167621733	167622689	957	577	21	36.11	6.16	46.95
chr3	167677889	167679441	1553	304	32	48.4	4.52	49.2
chr3	167699603	167700424	822	286	18	31.16	5.75	50.58
chr3	167886429	167887099	671	472	16	31.49	4.52	49.84
chr3	167936146	167937230	1085	421	23	33.29	5.34	48.83
chr3	168021791	168023372	1582	264	32	43.11	4.52	47.32
chr3	168136635	168137690	1056	288	21	30.89	4.52	50.76
chr3	168172017	168172777	761	551	17	30.42	3.7	51.28
chr3	168240232	168241026	795	284	19	33.32	5.71	48.7
chr3	168393270	168394236	967	536	22	35.55	6.57	47.19
chr3	169053564	169054666	1103	629	24	36.31	4.93	46.95
chr3	169063123	169064071	949	713	21	36.57	4.93	46.89
chr3	169917259	169918927	1669	1060	34	39.45	5.51	47.1
chr3	169965690	169966602	913	291	19	30.31	4.52	51.54
chr3	170097965	170098839	875	330	19	32	6.12	49.77
chr3	171282191	171283029	839	427	18	30.22	5.34	51.69
chr3	171375160	171377257	2098	1832	48	71.26	5.34	52.34
chr3	171388259	171389556	1298	693	27	38.06	6.16	46.43
chr3	171577629	171578661	1033	469	21	32.03	6.98	49.77
chr3	172016019	172017104	1086	818	29	59.67	6.57	56.01
chr3	172156429	172157359	931	666	21	37.63	4.93	45.83
chr3	172195080	172195949	870	286	20	32.96	5.71	49.28
chr3	172217413	172218245	833	544	19	34.81	5.34	47.51
chr3	172450680	172451683	1004	512	23	33.35	4.95	48.68
chr3	172499679	172500614	936	710	21	33.19	3.81	49.08
chr3	172813470	172814606	1137	699	25	38.51	4.93	46.22
chr3	172921125	172922009	885	633	20	36.04	4.93	46.89
chr3	173050995	173052320	1326	641	31	50.42	5.97	51.93
chr3	173640257	173641391	1135	647	24	34.65	6.16	47.66
chr3	174037277	174038029	753	495	17	30.89	5.34	50.71
chr3	174071226	174072109	884	452	19	31.87	6.16	49.75
chr3	174095390	174096176	787	201	19	37.71	5.75	46.52
chr3	174138345	174139131	787	505	18	33.21	4.52	49.15
chr3	174494467	174495677	1211	738	26	38.59	8.63	46.1
chr3	174896009	174897075	1067	643	25	42.49	5.75	47.34
chr3	175369605	175370271	667	290	16	31.75	4.52	49.79
chr3	175554714	175555770	1057	397	24	38.82	5.75	46.2
chr3	175565725	175566481	757	319	17	30.65	5.34	51.07
chr3	175784479	175785182	704	437	18	38.67	6.98	46.15
chr3	175817781	175818642	862	605	21	41.99	5.34	47.06
chr3	175924764	175926056	1293	634	32	59.44	6.57	54.97
chr3	176003009	176004060	1052	539	22	31.08	4.93	50.76
chr3	176081091	176082134	1044	434	21	31.48	5.75	49.97
chr3	176519642	176520504	863	614	19	33.05	4.93	49.1
chr3	176719068	176720547	1480	1226	34	52.37	4.11	50.85
chr3	176759752	176761200	1449	639	32	43.13	4.89	47.31
chr3	176785782	176787000	1219	688	27	35.12	4.79	47.37
chr3	176795240	176796112	873	269	24	50.85	6.16	51.61
chr3	176832172	176833707	1536	301	39	50.33	4.65	51.85
chr3	176840697	176842922	2226	587	48	58.41	3.5	54.23

chr3	176913614	176914708	1095	638	30	42.26	4.98	47.27
chr3	177221659	177222901	1243	591	25	33.2	4.93	49.09
chr3	177507149	177508129	981	725	20	30.76	4.93	50.95
chr3	178915308	178916486	1179	271	30	37.06	4.36	47.02
chr3	179400640	179401555	916	291	24	33.19	4.85	49.1
chr3	179430596	179432056	1461	857	33	30.99	3.2	50.49
chr3	179480905	179482023	1119	482	25	39.5	5.34	47
chr3	179517758	179519156	1399	629	27	32.9	5.3	49.35
chr3	179720680	179721626	947	344	21	35	5.18	47.59
chr3	179729376	179730778	1403	637	29	30.56	4.59	51.25
chr3	179892673	179893891	1219	530	26	33.49	5.33	48.69
chr3	180214412	180215245	834	289	19	34.75	4.93	47.59
chr3	180581697	180583284	1588	1023	35	50.52	5.75	51.37
chr3	180862361	180863311	951	555	22	36.46	4.52	47.14
chr3	180878410	180879141	732	456	17	32.16	4.93	49.88
chr3	181072208	181073101	894	237	19	31.32	4.11	50.32
chr3	181090222	181091058	837	558	19	31.9	5.06	49.86
chr3	181135899	181137226	1328	1057	30	43.63	5.39	47.69
chr3	181498204	181500042	1839	1249	36	36.25	4.57	46.96
chr3	182636246	182639208	2963	1313	69	31.51	2.69	49.89
chr3	183072580	183074232	1653	775	44	43.49	3.14	48.01
chr3	183233533	183235465	1933	1317	51	34.97	3.18	47.6
chr3	183345699	183346910	1212	775	30	31.7	6.5	49.75
chr3	184420864	184422339	1476	737	37	45.65	3.95	49.85
chr3	184572039	184575171	3133	523	71	34.34	3.07	47.87
chr3	184606832	184609665	2834	2117	67	34.51	3.58	47.7
chr3	184799225	184800178	954	376	21	32.19	5.33	49.99
chr3	184823169	184824111	943	669	23	31.05	4.11	50.6
chr3	184868624	184869504	881	280	20	34.66	4.38	47.69
chr3	185018757	185020696	1940	1061	53	54.57	5.61	53.98
chr3	185025350	185027860	2511	1048	61	55.18	5.15	53.07
chr3	185134885	185136814	1930	730	59	55	5.38	53.64
chr3	185229638	185230707	1070	412	28	41.39	7.39	46.97
chr3	185538246	185539921	1676	1013	36	36.07	4.5	47.04
chr3	185705553	185706858	1306	680	32	36.81	4.98	46.8
chr3	186062675	186064124	1450	575	33	33.42	4.61	48.69
chr3	186156869	186158490	1622	1122	40	37.95	4.1	46.47
chr3	186628875	186629818	944	558	21	35.81	4.83	47.13
chr3	186760239	186764581	4343	533	105	36.88	3.65	46.73
chr3	187199167	187200924	1758	1001	36	30.44	3.69	51.26
chr3	187308546	187309994	1449	675	37	32.02	3.53	49.77
chr3	187892440	187895139	2700	774	74	35.31	3.21	47.41
chr3	188758542	188760375	1834	1271	43	31.73	4.28	49.76
chr3	188840311	188841835	1525	421	32	33.78	3.48	48.67
chr3	188846814	188848692	1879	569	50	41.98	5.27	47.11
chr3	189189130	189190899	1770	1437	43	47.08	3.95	47.46
chr3	189238744	189240743	2000	1229	49	44.96	3.57	48.79
chr3	189294220	189295574	1355	930	30	46.98	4.52	47.65
chr3	189324585	189326018	1434	805	35	36.64	4.67	47.01
chr3	189568823	189569867	1045	410	28	44.4	5.14	48.59
chr3	189615766	189617153	1388	790	36	56.83	5.89	52.7
chr3	189712701	189713856	1156	603	29	44.97	5.77	48.92

chr3	189829962	189830835	874	339	20	32.72	4.95	49.38
chr3	190429211	190430824	1614	576	35	45.66	4.33	49.81
chr3	190587643	190588847	1205	407	28	41.07	4.52	46.41
chr3	190608427	190609932	1506	589	34	34.63	3.66	47.73
chr3	190618268	190619436	1169	590	27	39.9	6.85	46.58
chr3	190692006	190693348	1343	684	34	50.48	5.83	51.89
chr3	191282317	191283852	1536	1254	32	30.84	4.03	50.89
chr3	191373485	191374652	1168	880	31	41.34	4.36	46.88
chr3	191395046	191396038	993	702	24	36.69	5.96	46.95
chr3	191415533	191416938	1406	593	32	46.3	5.33	48.48
chr3	191434298	191435587	1290	761	26	34.24	4.08	47.9
chr3	191722078	191723771	1694	1118	38	40.1	5.43	46.65
chr3	191878469	191880572	2104	452	53	60.38	5.12	55.43
chr3	191915064	191916241	1178	899	29	39.33	4.41	46.58
chr3	191927385	191929128	1744	1067	35	33.07	5.05	49.21
chr3	192081467	192082998	1532	630	38	51.37	4.9	51.62
chr3	192183641	192185243	1603	254	42	36.79	4.51	46.82
chr3	192219482	192220648	1167	769	26	33.5	4.74	48.66
chr3	192520501	192522109	1609	859	39	41.33	4.71	46.89
chr3	192601536	192602451	916	271	19	30.15	4.52	51.66
chr3	192608543	192609804	1262	678	30	41.84	6.42	47.08
chr3	192871114	192872200	1087	581	23	33.19	5.75	49.07
chr3	192914747	192916747	2001	582	44	59.66	5.71	55.63
chr3	193205788	193207756	1969	680	42	37.62	4.94	45.79
chr3	194177439	194179973	2535	976	66	31.55	4.54	49.99
chr3	194579197	194580572	1376	759	32	33.16	4.67	49.15
chr3	195226414	195227996	1583	395	46	44.27	4.89	48.22
chr3	195708150	195709304	1155	805	39	35.09	4.59	47.35
chr3	196136237	196139273	3037	1806	76	37.98	3.87	46.39
chr3	196244463	196246899	2437	532	56	30.17	4.21	51.65
chr3	196484908	196486763	1856	586	50	40.23	3.83	46.74
chr3	196538788	196540460	1673	311	39	34.55	3.3	47.8
chr3	196553868	196556398	2531	1188	69	39.06	3.88	46.29
chr3	196837659	196841612	3954	3492	103	38.42	3.57	46.34
chr3	197236746	197237870	1125	509	30	42.99	4.85	47.36
chr3	197411653	197413724	2072	1648	52	40.29	3.78	46.88
chr3	197501102	197503327	2226	1197	62	32.34	3.85	49.9
chr4	190712	191559	848	457	19	33.92	6.16	48.7
chr4	590240	591120	881	286	21	36.46	4.57	47.11
chr4	703364	704090	727	507	18	30.81	5.05	51.03
chr4	966594	967494	901	599	19	30.95	3.7	50.5
chr4	1180476	1182094	1619	480	32	33.78	4.44	48.7
chr4	1381379	1382134	756	257	18	35.15	4.93	47.26
chr4	1807100	1809210	2111	1701	60	33.12	4.07	49.16
chr4	3580674	3581678	1005	280	24	41.88	6.57	47
chr4	4188981	4190170	1190	501	25	35.76	5.34	47.09
chr4	4931495	4932414	920	259	21	38.29	5.75	46.31
chr4	5737182	5737773	592	314	17	42.25	6.57	47.17
chr4	5915962	5917487	1526	262	31	35.81	4.14	47.18
chr4	6792519	6793973	1455	479	33	41.99	4.84	47.04
chr4	8447308	8448183	876	603	19	32.31	5.34	50.09
chr4	10651805	10652581	777	491	18	33.82	4.93	48.82

chr4	11437672	11438579	908	504	22	39.03	5.34	46.21
chr4	11854592	11855471	880	544	19	32.09	5.34	49.72
chr4	12704631	12705594	964	256	21	35.72	5.34	47.25
chr4	12892617	12893506	890	674	20	35.75	4.52	47.03
chr4	13016085	13017004	920	654	22	38.29	4.52	46.31
chr4	13661754	13662737	984	271	22	34.6	4.11	47.68
chr4	14940203	14941134	932	683	21	37.57	6.16	45.87
chr4	15100385	15101215	831	607	20	39.42	5.34	47.03
chr4	15640030	15640933	904	642	20	34.93	4.11	47.57
chr4	16219233	16220034	802	496	18	32.32	4.52	50.01
chr4	16223634	16224320	687	287	19	40.84	4.95	46.34
chr4	16529777	16530695	919	637	20	34.07	4.93	48.23
chr4	16614609	16615421	813	521	18	31.68	4.11	49.84
chr4	17178140	17179059	920	635	26	33.12	5.42	49.17
chr4	17533492	17534498	1007	389	22	33.37	6.16	48.68
chr4	17699683	17700506	824	539	19	31.57	6.09	49.95
chr4	17909140	17910490	1351	591	29	31.02	5.82	50.52
chr4	18016111	18017297	1187	363	35	48.7	5.11	50.37
chr4	18047926	18049731	1806	505	37	47.28	5.34	48.06
chr4	18082365	18083198	834	336	18	30.49	5.34	51.26
chr4	18114354	18115797	1444	1098	32	50.26	4.11	51.58
chr4	18587207	18588309	1103	711	23	32.4	4.93	49.71
chr4	18625991	18626895	905	627	19	30.73	4.11	50.98
chr4	19586884	19587679	796	330	22	46.68	6.57	47.45
chr4	19759790	19760612	823	617	18	31.11	4.52	50.68
chr4	19819897	19820852	956	327	21	36.17	4.52	46.95
chr4	19998187	19999147	961	717	22	35.89	4.93	46.97
chr4	20319889	20321385	1497	1249	33	41.5	4.19	47.2
chr4	20681548	20682919	1372	671	29	42.07	7.8	47.08
chr4	20768775	20769506	732	291	17	32.16	6.16	49.88
chr4	20871016	20872226	1211	556	26	38.59	6.16	46.1
chr4	20995247	20996055	809	538	18	31.91	4.52	49.82
chr4	21583977	21584530	554	277	15	34.09	5.69	48.19
chr4	21832202	21833299	1098	715	26	44.96	6.57	48.79
chr4	22655029	22655872	844	597	20	38.58	4.93	46.15
chr4	22776559	22777500	942	664	20	32.8	4.11	49.45
chr4	23244149	23245501	1353	671	28	36.36	6.69	47.19
chr4	23278053	23278835	783	412	18	33.46	5.34	48.67
chr4	23301355	23303090	1736	419	32	34.12	4.57	48.09
chr4	23401544	23402270	727	521	19	38.44	5.39	46.41
chr4	23640205	23641060	856	255	19	33.45	6.16	48.63
chr4	23736922	23737782	861	250	19	33.16	4.93	49.11
chr4	24682431	24683311	881	291	19	32.03	5.34	49.73
chr4	24981273	24982309	1037	785	24	39.97	4.93	46.76
chr4	25253544	25254402	859	598	19	33.28	4.93	48.91
chr4	25666192	25668269	2078	495	51	35.13	3.16	47.34
chr4	25677521	25678673	1153	400	29	33.45	5.47	48.61
chr4	25818998	25820125	1128	646	24	34.58	5.71	47.73
chr4	27226183	27226991	809	348	19	36.29	4.52	46.98
chr4	28327512	28328183	672	249	16	31.43	4.93	50.09
chr4	28550604	28551831	1228	582	26	37.72	6.16	46.53
chr4	28811683	28812382	700	287	17	34.2	6.16	47.93

chr4	29197646	29199075	1430	1034	31	35.25	4.2	47.3
chr4	29352967	29354027	1061	285	21	30.64	4.93	51.13
chr4	29432079	29432995	917	277	19	30.1	4.93	51.55
chr4	29506777	29507626	850	332	21	42.81	6.57	47.45
chr4	29638628	29639537	910	587	22	38.49	4.89	46.4
chr4	30293141	30294366	1226	626	29	37.3	5.14	46.73
chr4	30326162	30326916	755	226	17	30.77	4.93	50.95
chr4	30451066	30451762	697	279	19	44.19	6.16	48.06
chr4	31045486	31046452	967	289	20	31.48	4.52	50
chr4	31656388	31658415	2028	416	43	62.96	4.93	53.39
chr4	31841195	31842791	1597	979	37	58.21	4.93	54.11
chr4	31896244	31897166	923	561	20	33.85	5.34	48.75
chr4	32113061	32113963	903	578	20	34.99	5.75	47.57
chr4	32339848	32341284	1437	962	32	50.65	5.34	51.45
chr4	33565095	33566671	1577	819	39	68.14	6.16	53.28
chr4	33836457	33837712	1256	728	28	44.25	6.57	48.35
chr4	34345283	34346063	781	507	21	47.83	4.52	49.34
chr4	35178964	35179947	984	410	23	34.46	5.71	47.79
chr4	35320815	35321815	1001	341	21	33.69	4.93	48.59
chr4	35622569	35623458	890	415	19	31.54	4.11	49.9
chr4	35932993	35933772	780	378	18	32.72	5.64	49.38
chr4	36175338	36176175	838	563	18	30.27	3.7	51.68
chr4	36225186	36226513	1328	1075	30	48.5	4.11	49.59
chr4	36744079	36744961	883	507	19	31.92	4.52	49.72
chr4	36796359	36797193	835	273	18	30.44	5.75	51.32
chr4	36891571	36892473	903	360	22	39.34	6.16	46.61
chr4	37280437	37281391	955	425	21	33.32	5.06	48.75
chr4	37432907	37433786	880	655	19	32.09	4.52	49.72
chr4	37459667	37460580	914	480	20	33.36	4.43	48.69
chr4	37557455	37558338	884	285	19	31.87	4.93	49.75
chr4	38497396	38498971	1576	578	32	43.4	4.52	47.8
chr4	38848537	38850130	1594	288	32	38.53	5.06	46.21
chr4	39152320	39153499	1180	788	28	39.58	5.41	46.62
chr4	39451712	39452593	882	290	20	34	4.33	48.55
chr4	39651144	39652322	1179	433	24	32.5	5.75	49.39
chr4	39831959	39832874	916	605	19	30.15	4.52	51.66
chr4	39883010	39883955	946	485	24	38.28	4.74	46.31
chr4	39973200	39975738	2539	2249	53	46.83	3.77	47.21
chr4	40171821	40172698	878	271	20	31.87	5.64	49.75
chr4	40195343	40197296	1954	845	58	42.07	5.9	47.12
chr4	40390539	40391445	907	231	19	30.63	4.52	51.2
chr4	40437653	40439017	1365	674	27	34.87	5.75	47.6
chr4	40500646	40501263	618	327	16	30.8	4.84	51.01
chr4	42079583	42080450	868	472	25	50.29	6.77	51.65
chr4	42645793	42647225	1433	1026	39	34.85	3.1	47.61
chr4	42757519	42758676	1158	558	25	37.4	5.34	46.73
chr4	42949154	42950224	1071	335	23	34.01	6.16	48.53
chr4	42969669	42970615	947	388	20	32.53	4.52	49.43
chr4	43046244	43047315	1072	500	22	30.12	5.34	51.63
chr4	43174778	43175603	826	543	18	30.94	4.52	50.56
chr4	43222566	43223599	1034	634	23	31.76	4.57	49.86
chr4	43715215	43715967	753	438	18	35.34	5.34	47.46

chr4	44340737	44341675	939	321	21	37.16	4.52	46.85
chr4	44592197	44593261	1065	563	21	30.45	4.11	51.29
chr4	44970933	44971755	823	533	18	31.11	3.7	50.68
chr4	45336543	45337371	829	510	18	30.77	4.52	50.95
chr4	45376213	45377223	1011	613	21	31.54	4.38	49.95
chr4	45772133	45773396	1264	523	25	32.23	6.16	50.03
chr4	46068025	46069739	1715	1381	35	44.2	4.52	48.02
chr4	46741899	46743086	1188	540	26	39.81	5.34	46.65
chr4	46808300	46810156	1857	1297	33	31.63	4.93	49.9
chr4	46900603	46901385	783	505	19	37.98	4.93	46.38
chr4	46986496	46987412	917	637	20	34.18	5.34	47.96
chr4	47311669	47312565	897	622	20	35.33	4.93	47.42
chr4	47342877	47343739	863	573	19	33.05	4.11	49.1
chr4	47355846	47356755	910	381	22	38.91	4.93	46.27
chr4	47414883	47415803	921	571	20	30.1	4.19	51.56
chr4	47554962	47556257	1296	635	28	41.57	5.71	47.21
chr4	47638167	47639296	1130	445	27	35.32	5.14	47.42
chr4	48089545	48090731	1187	560	27	43.99	5.34	47.98
chr4	48111252	48112609	1358	656	30	38.15	4.01	46.28
chr4	48123175	48124368	1194	809	27	43.59	6.57	47.67
chr4	48321334	48322153	820	233	18	31.28	4.11	50.36
chr4	48430566	48431888	1323	617	26	31.35	4.78	50.22
chr4	48666234	48667140	907	377	20	30.86	4.19	50.94
chr4	48765705	48766591	887	234	23	30.22	3.81	51.74
chr4	48804980	48805874	895	283	19	31.27	4.52	50.46
chr4	49036126	49037374	1249	618	31	57.77	9.04	53.23
chr4	52705234	52707068	1835	513	40	30.97	4.24	50.44
chr4	53171263	53172255	993	750	20	30.16	4.93	51.68
chr4	53576963	53579168	2206	1710	46	31.69	4.05	49.74
chr4	53600063	53600883	821	486	19	31.75	5.71	49.78
chr4	54243181	54246582	3402	1289	95	45.37	4.49	49.56
chr4	54265478	54267402	1925	644	40	30.08	4.71	51.54
chr4	54307731	54308985	1255	657	30	32.88	5.6	49.33
chr4	54312888	54313808	921	446	22	33.46	4.89	48.59
chr4	54422870	54423701	832	599	18	30.6	5.34	51.25
chr4	54610916	54612264	1349	682	29	33.7	4.99	48.59
chr4	54638671	54639592	922	636	22	37.76	4.48	46.74
chr4	54818050	54818889	840	365	19	34.39	5.34	47.73
chr4	54840417	54841305	889	275	20	35.81	4.93	47.08
chr4	55050493	55051729	1237	957	31	44.15	4.45	48.09
chr4	55138341	55139004	664	266	16	31.95	4.93	49.78
chr4	55177045	55177672	628	285	18	44.56	6.98	48.79
chr4	55368489	55369621	1133	653	23	30.96	5.75	50.53
chr4	55497005	55497830	826	500	19	31.45	6.47	50.04
chr4	55591870	55592505	636	350	18	40.51	5.77	46.96
chr4	55592638	55594463	1826	1535	47	58.06	4.94	53.17
chr4	55600669	55601387	719	289	21	48.88	6.93	50.54
chr4	55856110	55857678	1569	549	32	43.74	4.93	47.89
chr4	55970677	55971377	701	288	17	30.67	4.57	51.06
chr4	56628538	56629642	1105	719	24	36.2	6.98	46.93
chr4	56709262	56710533	1272	921	28	43.37	4.93	47.92
chr4	56743415	56744533	1119	605	25	35.53	5.77	47.19

chr4	57333048	57334089	1042	395	25	30.65	5.6	51.1
chr4	57444349	57445644	1296	618	31	50.41	5.45	51.86
chr4	57496186	57497132	947	448	20	32.53	4.52	49.43
chr4	57607480	57608361	882	246	20	36.22	4.11	46.99
chr4	57790825	57791652	828	393	20	39.62	5.34	46.59
chr4	58788647	58789510	864	602	19	32.99	4.52	49.23
chr4	59238784	59239660	877	475	20	36.52	4.93	46.89
chr4	59618970	59619861	892	601	20	35.63	5.34	47.33
chr4	60190672	60191377	706	285	18	38.53	6.16	46.17
chr4	60837375	60838414	1040	494	22	31.68	4.93	49.85
chr4	60995117	60995893	777	290	20	38.92	4.19	46.25
chr4	61190704	61191316	613	335	15	30.66	4.93	51.05
chr4	61988180	61989013	834	255	18	30.49	3.7	51.26
chr4	62654710	62655472	763	348	19	39.33	5.34	46.6
chr4	62874116	62875147	1032	289	23	36.07	5.34	46.98
chr4	62910329	62911319	991	735	23	38.39	4.93	46.31
chr4	63679180	63680052	873	328	21	41.26	5.75	46.87
chr4	64008364	64010005	1642	1382	33	43.96	4.11	47.77
chr4	64102797	64104068	1272	552	26	35.54	5.34	47.21
chr4	64164635	64165936	1302	405	32	58.85	5.34	52.76
chr4	64470395	64471324	930	323	20	33.46	4.93	48.63
chr4	64715893	64716917	1025	337	23	36.46	4.93	47.18
chr4	64772776	64773673	898	289	21	35.41	4.57	47.52
chr4	64789732	64790394	663	386	16	32.01	5.34	49.76
chr4	64970461	64971101	641	381	17	38.36	6.16	46.4
chr4	65013287	65014271	985	702	26	52.43	5.34	50.46
chr4	66071318	66072364	1047	443	21	31.33	4.11	50.27
chr4	66243056	66244101	1046	602	22	31.38	5.34	50.17
chr4	66325151	66325934	784	376	21	47.6	6.57	48.99
chr4	66370414	66371293	880	561	21	40.81	4.93	46.37
chr4	66449930	66450839	910	550	21	34.7	4.57	47.79
chr4	66452649	66453526	878	562	19	32.2	4.11	49.92
chr4	66496899	66497684	786	401	18	32.36	5.24	49.87
chr4	66617056	66617674	619	284	16	35.03	5.34	47.47
chr4	67038840	67040249	1410	739	30	44.03	6.57	48.06
chr4	67042134	67042900	767	262	17	30.07	5.75	51.5
chr4	67319737	67320494	758	426	17	30.59	5.75	51.24
chr4	67489071	67489803	733	446	17	32.1	4.93	49.7
chr4	67512106	67513803	1698	1133	32	37.86	4.93	46.76
chr4	67618188	67620153	1966	585	34	40.26	5.75	46.75
chr4	67653536	67654035	500	250	16	48.45	6.57	49.14
chr4	67696598	67697505	908	288	19	30.57	4.93	51.17
chr4	67917711	67918656	946	273	20	32.59	4.11	49.31
chr4	67941051	67941894	844	563	21	38.84	4.95	46.22
chr4	68242845	68243990	1146	442	25	38.03	4.93	46.43
chr4	68257905	68259433	1529	530	30	38.24	4.52	46.31
chr4	68290792	68292226	1435	647	29	38.95	6.98	46.16
chr4	69555157	69556995	1839	855	36	42.19	4.52	47.1
chr4	69973283	69974937	1655	1374	33	39.73	4.52	46.58
chr4	70079858	70080840	983	715	23	38.86	4.52	46.27
chr4	70229967	70231049	1083	261	24	37.38	4.52	46.61
chr4	70333439	70334204	766	214	18	34.51	4.93	47.68

chr4	70370796	70371684	889	599	21	35.96	5.33	47
chr4	70436358	70437262	905	658	20	34.87	4.93	47.62
chr4	70547613	70548376	764	434	18	34.64	4.93	47.73
chr4	70746602	70747834	1233	960	30	48.33	4.19	49.25
chr4	70755477	70756228	752	451	17	30.95	4.52	50.53
chr4	70967905	70969199	1295	687	30	50.43	5.34	52
chr4	71111658	71112834	1177	348	31	62.13	5.71	54.2
chr4	71553333	71554787	1455	871	34	30.01	4.51	51.48
chr4	71860348	71861506	1159	554	30	38.88	4.71	46.25
chr4	71914838	71915576	739	506	17	30.86	4.83	50.85
chr4	72108707	72109745	1039	488	22	31.73	5.34	49.74
chr4	72113291	72114141	851	285	21	42.74	4.93	47.45
chr4	72905701	72906320	620	335	19	50.74	7.39	51.53
chr4	73058704	73059640	937	670	21	37.27	4.52	46.57
chr4	73604922	73606176	1255	514	25	32.64	6.16	49.33
chr4	73724126	73724887	762	438	17	30.36	4.11	51.65
chr4	73946396	73947817	1422	761	31	44.14	5.12	48.13
chr4	73984689	73985592	904	697	20	33.93	4.03	48.74
chr4	74005186	74006127	942	456	24	36.08	5.59	46.94
chr4	74372077	74373122	1046	508	21	31.38	5.75	50.17
chr4	74680913	74681655	743	493	19	40.73	4.93	46.57
chr4	74802610	74803632	1023	611	24	40.79	7.39	46.36
chr4	75006013	75006779	767	287	18	34.45	6.16	47.77
chr4	75741049	75741876	828	289	18	30.83	5.75	50.88
chr4	75811231	75812125	895	622	24	42.29	4.79	47.31
chr4	76041288	76042389	1102	283	24	32.01	4.57	49.78
chr4	76584222	76586381	2160	441	51	39.02	4.28	46.18
chr4	81413165	81414166	1002	511	21	33.63	5.75	48.79
chr4	84695329	84696036	708	442	17	30.23	5.33	51.73
chr4	85225998	85226840	843	576	19	33.84	4.08	48.74
chr4	86036119	86036824	706	303	17	33.81	5.34	48.84
chr4	86327066	86328269	1204	634	25	35.06	7.39	47.4
chr4	86663190	86664248	1059	669	25	35.56	4.37	47.16
chr4	86792702	86793589	888	611	20	35.86	5.34	47.02
chr4	86859141	86860374	1234	654	28	40.97	5.77	46.2
chr4	87403623	87404442	820	288	18	31.28	6.98	50.36
chr4	87875373	87876090	718	270	18	37.69	4.52	46.44
chr4	87973320	87974871	1552	274	35	52.47	5.34	50.47
chr4	88071020	88072595	1576	782	36	52.51	4.78	50.47
chr4	88142793	88144112	1320	593	29	32.47	4.79	49.48
chr4	88257219	88258080	862	586	19	33.1	4.11	49.14
chr4	88855129	88856524	1396	561	31	38.3	3.57	46.41
chr4	88983385	88984118	734	464	18	36.59	5.34	46.9
chr4	89287147	89288150	1004	284	24	31.33	5.14	50.26
chr4	89554456	89555347	892	409	20	35.63	5.34	47.33
chr4	90299379	90300793	1415	253	31	34.52	3.77	47.74
chr4	90493586	90494275	690	411	17	34.87	5.75	47.63
chr4	90659720	90660887	1168	508	25	36.88	6.57	46.69
chr4	90837630	90838545	916	379	22	38.54	6.57	46.22
chr4	90850514	90851571	1058	558	23	34.68	4.52	47.77
chr4	91030826	91031943	1118	452	27	42.12	7.53	46.84
chr4	91441096	91442012	917	255	20	30.31	5.71	51.55



chr4	91769769	91770664	896	281	19	31.21	4.11	50.51
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chr4	91858543	91859483	941	565	20	32.86	5.34	49.3
chr4	91873746	91874775	1030	778	22	32.18	4.93	49.95
chr4	92006966	92008086	1121	337	31	41.1	5.66	46.32
chr4	92076610	92077842	1233	442	30	36.53	4.2	46.92
chr4	92430301	92431260	960	538	28	34.61	4.62	47.74
chr4	92538213	92540006	1794	1202	47	71.4	7.29	52.83
chr4	92677829	92678868	1040	654	21	31.68	5.34	49.85
chr4	93108063	93109144	1082	633	23	33.44	5.34	48.62
chr4	93485581	93486566	986	554	21	30.48	4.57	51.28
chr4	93808104	93809118	1015	545	23	37.02	4.52	46.97
chr4	93956882	93957872	991	589	20	30.26	5.75	51.67
chr4	94247982	94248987	1006	288	22	33.42	4.93	48.69
chr4	94410432	94411307	876	628	19	32.31	4.52	50.09
chr4	94780730	94781621	892	286	19	31.43	4.93	50
chr4	95271620	95272445	826	253	20	35.65	4.19	47.29
chr4	95557675	95558659	985	362	20	30.56	4.93	51.26
chr4	95775685	95777231	1547	527	31	37.19	3.89	46.88
chr4	95792728	95794054	1327	691	27	36.65	4.93	46.99
chr4	95841742	95842632	891	613	21	40.1	5.75	46.56
chr4	96478969	96479909	941	442	23	41.42	6.57	47.09
chr4	97154124	97155726	1603	427	35	49.73	4.52	51.97
chr4	97354592	97355628	1037	357	21	31.83	5.34	49.81
chr4	97504531	97505387	857	599	19	33.39	4.52	48.72
chr4	97894348	97895705	1358	663	27	35.19	5.75	47.18
chr4	98449593	98450500	908	580	19	30.57	6.16	51.17
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chr4	98761865	98762802	938	557	20	33.02	5.34	49.11
chr4	99481783	99482805	1023	289	23	36.57	5.34	46.9
chr4	99549884	99550709	826	539	19	35.24	4.52	47.26
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chr4	99661133	99662145	1013	724	21	33.06	4.93	49.12
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chr4	100299241	100300282	1042	645	21	30.58	3.63	51.21
chr4	100808149	100809190	1042	374	25	32.88	5.48	49.34
chr4	100842892	100843828	937	285	21	36.21	4.43	46.94
chr4	100863875	100865459	1585	466	40	31.44	3.42	49.99
chr4	100868005	100870293	2289	655	51	32.14	3.37	49.89
chr4	101395306	101396319	1014	397	22	33	5.75	49.18
chr4	101401774	101402968	1195	754	24	31.75	5.75	49.81
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chr4	102056428	102057374	947	617	23	41.04	5.34	46.42
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chr4	103121797	103122473	677	356	16	31.11	4.52	50.68
chr4	103314113	103315135	1023	259	21	32.15	4.48	49.95
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chr4	105975115	105976004	890	630	27	59.22	6.47	53.72
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chr4	106644550	106645176	627	316	16	31.12	4.95	50.68
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chr4	107143242	107144310	1069	710	26	46.76	5.34	47.51
chr4	107435294	107436516	1223	697	24	30.48	6.57	51.3
chr4	107501849	107502577	729	440	17	32.34	4.93	49.9
chr4	107503970	107504904	935	549	21	36.98	6.12	46.97
chr4	107851891	107853398	1508	745	36	59.21	6.57	53.87
chr4	108280083	108281184	1102	823	24	36.36	4.52	47.17
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chr4	108875414	108876158	745	484	17	31.37	5.75	50.22
chr4	109530494	109531483	990	504	20	30.31	5.34	51.56
chr4	110166527	110167397	871	278	20	36.89	5.34	46.68
chr4	110215592	110216451	860	580	20	37.57	4.52	45.96
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chr4	111872059	111873155	1097	561	25	38.81	5.58	46.13
chr4	111943600	111944251	652	402	17	33.95	4.95	48.66
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chr4	114209790	114211336	1547	760	36	51.15	7.31	51.72
chr4	114380081	114381583	1503	655	35	46.92	5.58	47.8
chr4	114711643	114712412	770	243	19	37.84	4.83	46.74
chr4	115227682	115228423	742	282	17	31.55	4.52	49.94
chr4	115358698	115360011	1314	778	27	37.28	5.75	46.67
chr4	115424592	115427242	2651	446	49	52.26	4.52	51.14
chr4	115496945	115497718	774	495	21	48.37	6.98	49.1
chr4	115819628	115820380	753	266	17	30.03	4.43	51.48
chr4	115842708	115843509	802	547	18	32.32	4.52	50.01
chr4	116048305	116049519	1215	576	26	33.69	4.95	48.6
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chr4	116323614	116324682	1069	783	25	37.61	5.33	45.73
chr4	116403515	116404536	1022	732	26	43.91	4.89	47.72
chr4	116655009	116656071	1063	404	24	38.48	5.34	46.39
chr4	116660159	116660968	810	598	19	36.23	4.52	46.97
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chr4	116701087	116702595	1509	505	30	34.7	5	47.8
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chr4	116847721	116848656	936	270	20	33.13	5.75	49.14
chr4	116930989	116932189	1201	397	24	31.48	4.52	50.01
chr4	116975323	116976127	805	518	18	32.14	6.16	49.83
chr4	117005238	117006165	928	649	23	39.73	5.12	46.63
chr4	117329781	117330934	1154	527	24	33.71	5.75	48.61
chr4	117896233	117897352	1120	401	25	39.44	5.75	47.06
chr4	118006930	118007727	798	374	18	32.55	5.34	49.31
chr4	118339291	118340241	951	258	21	36.46	4.11	47.14
chr4	118634740	118635905	1166	489	26	41.01	6.16	46.25
chr4	118961219	118962651	1433	469	34	40.45	5.82	46.87
chr4	119068723	119070458	1736	628	31	33	4.52	49.18
chr4	119140246	119141045	800	224	18	32.44	4.93	49.55
chr4	119512260	119513040	781	517	21	37.29	4.45	46.72
chr4	119796361	119798009	1649	550	51	43.64	4.57	47.74
chr4	120092405	120093376	972	393	21	31.22	5.33	50.58
chr4	120599027	120599926	900	335	20	35.16	4.52	47.05
chr4	120661759	120662857	1099	536	27	49.35	4.93	51.31
chr4	120965052	120965953	902	575	21	34.58	4.52	47.7
chr4	121085186	121086056	871	362	19	32.59	4.52	49.42
chr4	121103993	121105786	1794	355	39	55.51	5.75	54.13
chr4	121156390	121157197	808	230	20	40.97	4.93	46.22
chr4	121320765	121322159	1395	727	32	53.07	5.75	51.41
chr4	122146200	122148583	2384	1694	52	33.47	3.84	48.6
chr4	122274793	122278054	3262	610	83	67.94	3.96	54.35
chr4	122427860	122429159	1300	611	29	34.76	4.54	47.6
chr4	122473539	122474761	1223	590	28	40.07	6.02	46.55
chr4	122891725	122893314	1590	471	32	45.7	3.4	49.7
chr4	123014620	123015629	1010	739	21	33.21	5.75	49.14
chr4	123177255	123178905	1651	655	32	34.6	3.28	47.72
chr4	123288504	123289395	892	262	19	31.43	6.98	50
chr4	123516963	123517867	905	281	21	39.22	4.93	46.37
chr4	123566482	123567242	761	306	17	30.42	5.34	51.28
chr4	123900691	123901775	1085	549	23	33.29	4.93	48.83
chr4	124062776	124064150	1375	933	33	48.06	5.71	49.18
chr4	124177693	124178587	895	215	20	35.45	4.52	47.41
chr4	124438460	124440199	1740	1468	31	36.12	4.52	47.01
chr4	124451875	124452511	637	358	17	38.66	5.75	46.06
chr4	124683620	124684839	1220	733	27	42.14	5.34	46.95
chr4	124816597	124817430	834	368	18	30.49	4.93	51.26
chr4	124872785	124873942	1158	492	24	33.51	6.98	48.65
chr4	125021336	125023140	1805	591	35	40.19	5.34	46.65
chr4	125106350	125107353	1004	640	24	41.94	5.34	47.01
chr4	125324011	125325397	1387	526	31	46.92	5.18	47.76
chr4	125604342	125605874	1533	966	33	45.52	5.34	49.96
chr4	125777221	125777810	590	285	16	37.19	5.34	46.9
chr4	126148867	126149861	995	720	20	30.06	4.52	51.48
chr4	126186437	126187492	1056	663	21	30.89	4.93	50.76
chr4	126209569	126210739	1171	455	29	34.04	4.67	48.52
chr4	126252363	126254058	1696	286	34	37.05	6.2	47.05
chr4	126341672	126343959	2288	612	50	30.5	4.25	51.28

chr4	126378744	126380989	2246	628	53	40.64	4	46.64
chr4	126496659	126498088	1430	627	34	39.85	4.07	46.64
chr4	126525246	126526820	1575	285	41	57.43	4.41	53.91
chr4	126723336	126725105	1770	1309	36	31.36	4.11	50.23
chr4	126737803	126739059	1257	628	27	30.69	5.3	51
chr4	126750884	126753245	2362	893	57	58.97	4.89	52.63
chr4	127024980	127025930	951	251	20	32.32	4.11	50.02
chr4	127243085	127244074	990	747	21	34.28	4.93	47.79
chr4	127650464	127651682	1219	600	25	34.33	5.75	47.83
chr4	128056393	128057534	1142	678	24	30.05	5.33	51.45
chr4	128476087	128477206	1120	318	28	52.54	5.34	50.16
chr4	128569332	128570772	1441	593	32	41.9	4.79	47.01
chr4	129094482	129097438	2957	1064	85	43.12	3.78	47.34
chr4	129331947	129334107	2161	1872	50	32.63	3.56	49.43
chr4	129602092	129604674	2583	396	57	39.45	4	47.12
chr4	129958647	129963244	4598	970	118	38.03	3.81	46.41
chr4	130040818	130042638	1821	603	41	36.51	4.05	47
chr4	130192449	130194451	2003	1622	50	35.92	3.95	47.1
chr4	130297577	130299437	1861	1134	48	51.78	4.59	51.02
chr4	130329687	130331403	1717	901	48	63.47	5.34	55.29
chr4	130492496	130494074	1579	1114	35	31.05	3.81	50.59
chr4	130526021	130528377	2357	1012	55	58.38	4.45	53.76
chr4	130587085	130588458	1374	460	31	31.96	4.16	49.79
chr4	130761076	130763085	2010	739	54	43.01	5.49	47.51
chr4	131596552	131597644	1093	713	24	31.25	4.09	50.5
chr4	131687383	131688631	1249	560	30	42.59	4.64	47.26
chr4	131695350	131696496	1147	545	27	36.95	4.99	46.97
chr4	131962215	131962989	775	487	22	30.71	4.81	51
chr4	131990425	131991705	1281	680	31	39.41	5.98	47.07
chr4	132187915	132190479	2565	640	59	67.49	4.89	54.17
chr4	132224733	132226777	2045	1446	47	43.71	4.48	47.87
chr4	132238749	132241090	2342	283	59	50.32	4	51.72
chr4	132370680	132371873	1194	631	29	31.1	4.55	50.63
chr4	132387290	132388881	1592	993	38	38.23	3.74	46.34
chr4	132403439	132406024	2586	1868	66	55.87	4.57	53.38
chr4	132526045	132528998	2954	2419	67	57.67	4.85	54.01
chr4	132721239	132722401	1163	434	28	31.12	4.05	50.71
chr4	132744069	132745204	1136	482	31	37.1	4.57	46.96
chr4	132867447	132868920	1474	864	35	33.97	4.01	48.61
chr4	133045096	133046760	1665	1214	37	39.81	4.15	46.64
chr4	133456858	133457689	832	286	18	30.6	4.52	51.25
chr4	133534891	133536602	1712	429	35	38.39	4.57	46.35
chr4	133635807	133636632	826	545	19	31.45	4.95	50.04
chr4	133724396	133726438	2043	564	41	50.83	5.34	51.81
chr4	133736889	133737569	681	379	19	45.46	6.57	49.78
chr4	133841262	133842681	1420	704	30	43.51	6.57	48.09
chr4	134080654	134081721	1068	487	23	34.16	5.75	48.02
chr4	134167616	134168826	1211	631	26	38.59	6.16	46.1
chr4	134180883	134182372	1490	1268	30	40.05	4.11	46.59
chr4	134468618	134469594	977	384	23	39.21	5.75	46.37
chr4	134572744	134573891	1148	904	33	63.12	5.71	53.46
chr4	134574027	134575053	1027	263	22	32.33	4.52	49.98

chr4	134860233	134861710	1478	698	33	34.81	4.79	47.54
chr4	134918670	134919869	1200	363	30	56.43	6.98	53.68
chr4	134967189	134968141	953	415	20	32.21	5.75	49.97
chr4	135186099	135187214	1116	570	26	43.88	5.75	48
chr4	135671003	135671930	928	617	28	40.03	4.85	46.58
chr4	135783402	135784300	899	287	19	31.05	4.93	50.69
chr4	136032719	136033628	910	374	20	34.58	4.93	47.72
chr4	136095184	136096040	857	257	19	33.39	4.52	48.72
chr4	136281455	136282599	1145	391	25	38.09	5.34	46.46
chr4	136367556	136368273	718	470	17	32.7	4.48	49.44
chr4	136434845	136436492	1648	1341	38	37.68	4.16	46.38
chr4	137028439	137029641	1203	411	25	35.11	4.93	47.43
chr4	138152473	138153593	1121	614	24	35.37	5.75	47.53
chr4	138555263	138555866	604	267	16	36.13	6.16	46.98
chr4	138741064	138741885	822	554	19	35.48	4.52	47.39
chr4	138804775	138806269	1495	682	34	45.32	6.47	49.32
chr4	139282126	139283460	1335	600	29	44.01	7.39	48.03
chr4	139350341	139351458	1118	674	25	39.55	6.16	46.77
chr4	139435013	139436186	1174	785	30	47.95	5.05	49.42
chr4	139911448	139912235	788	374	18	33.15	5.34	49.12
chr4	140122141	140123374	1234	533	32	48.28	5.14	49.31
chr4	140620642	140621813	1172	747	27	44.86	5.75	48.94
chr4	140671121	140671941	821	270	18	31.22	4.93	50.51
chr4	140792223	140793762	1540	486	34	32.46	3.96	49.45
chr4	141195610	141197520	1911	1415	41	57.27	5.34	53.33
chr4	141632958	141633811	854	351	23	31.25	4.67	50.51
chr4	141778122	141779070	949	482	20	32.43	6.16	49.57
chr4	142335165	142336089	925	655	20	33.74	5.34	48.66
chr4	142630204	142630931	728	281	17	32.41	4.93	49.69
chr4	143272049	143273471	1423	240	31	38.44	4.37	46.34
chr4	144432882	144435718	2837	2200	80	32.73	3.02	49.34
chr4	144479223	144481399	2177	448	59	36.86	4.46	46.82
chr4	144587655	144589339	1685	757	42	42.41	4.47	47.14
chr4	144675440	144677447	2008	700	44	52.33	4.19	50.84
chr4	144968117	144969148	1032	624	28	33.13	4.28	49.17
chr4	145012152	145013912	1761	416	41	50.57	5.3	51.44
chr4	145135415	145137607	2193	709	50	43.21	5.29	47.62
chr4	145328423	145330264	1842	388	36	33.53	5.43	48.67
chr4	145550960	145552252	1293	467	29	30.13	4.2	51.63
chr4	145618574	145620421	1848	1053	52	53.13	4.08	51.59
chr4	145751122	145752604	1483	659	39	47.58	5.29	49.03
chr4	145895035	145897596	2562	1403	58	36.94	3.11	46.87
chr4	146079424	146082944	3521	738	90	36.31	3.57	47
chr4	146252139	146253189	1051	463	21	31.13	5.75	50.63
chr4	146635542	146636448	907	548	20	33.15	4.78	49.19
chr4	146830436	146833431	2996	2198	79	31.36	3.63	50.21
chr4	147125943	147127514	1572	1044	37	31.49	3.81	49.9
chr4	147175400	147177084	1685	1429	48	46.72	3.69	47.56
chr4	147200341	147202380	2040	1229	49	55.38	5.37	53.53
chr4	147380727	147381990	1264	740	30	35.49	3.59	47.36
chr4	147428646	147430136	1491	924	37	38.08	4.85	46.45
chr4	147508072	147509416	1345	846	29	31.29	5.14	50.33

chr4	147512923	147514179	1257	779	25	32.12	4.48	49.78
chr4	147554950	147556028	1079	645	25	37.05	5.33	47.04
chr4	147560276	147561378	1103	585	24	30.75	5.58	50.96
chr4	147754731	147756897	2167	1376	50	48.05	4.52	49.13
chr4	147792320	147793403	1084	281	30	33.06	4.85	49.17
chr4	147823661	147825105	1445	611	33	44.18	4.57	48.03
chr4	147825110	147827676	2567	661	55	47.55	4.41	48.95
chr4	147883650	147885021	1372	798	29	36.09	4.89	46.96
chr4	148115081	148116095	1015	595	26	38.9	4.84	46.24
chr4	148289432	148290772	1341	760	32	41.86	4.11	47.17
chr4	148337615	148339295	1681	1098	35	30.01	4.32	51.47
chr4	148549131	148551761	2631	913	87	56.33	3.63	53.88
chr4	148767431	148768802	1372	731	32	48.23	5.71	49.56
chr4	149058205	149059157	953	336	20	32.21	6.57	49.97
chr4	149162512	149163458	947	348	22	30.32	4.74	51.58
chr4	149232982	149234184	1203	405	30	56.23	6.98	53.97
chr4	149547366	149549445	2080	1451	52	62.7	5.98	54.91
chr4	149585420	149586340	921	497	21	38.23	5.75	46.31
chr4	149711845	149713127	1283	769	28	30.95	4.79	50.56
chr4	149798902	149800890	1989	492	49	79.64	6.56	59.26
chr4	150253214	150254695	1482	544	33	31.94	3.62	49.74
chr4	150267114	150268231	1118	497	24	35.52	5.75	47.23
chr4	150327683	150330089	2407	1004	45	32.36	4.11	49.83
chr4	150448245	150449490	1246	817	27	30.6	4.54	51.22
chr4	150493397	150495563	2167	1176	62	59.21	4.74	53.7
chr4	150694841	150695996	1156	627	27	32.11	4.99	49.72
chr4	150814205	150816494	2290	1677	48	36.95	3.55	46.91
chr4	150919842	150921350	1509	799	41	32.24	4.4	50.04
chr4	150930313	150932846	2534	1729	65	30.17	3.65	51.65
chr4	151226828	151228519	1692	988	49	30.02	4.07	51.5
chr4	151345213	151347552	2340	1617	66	44.53	3.77	48.7
chr4	151426667	151427999	1333	711	38	43.62	4.73	47.61
chr4	151449485	151450815	1331	736	30	30.88	4.48	50.81
chr4	151561831	151564161	2331	1215	64	54.01	3.89	52.66
chr4	151953057	151955304	2248	1710	51	33.58	3.72	48.73
chr4	152081700	152082915	1216	436	31	38.44	3.74	46.36
chr4	152288458	152289866	1409	923	32	39.68	4.54	46.51
chr4	152436136	152437302	1167	514	28	49.51	4.93	51.4
chr4	152500628	152501568	941	604	22	31.2	4.42	50.53
chr4	152633955	152635427	1473	1196	32	40.27	4.42	46.85
chr4	152823428	152824775	1348	882	30	33.14	4.03	49.14
chr4	153000906	153001651	746	489	22	39.86	4.45	46.61
chr4	153054733	153055611	879	597	21	30.97	4.45	50.44
chr4	153333449	153334933	1485	722	39	50.79	4.85	51.87
chr4	153419528	153425957	6430	5796	156	30.9	4.84	50.68
chr4	153589651	153590863	1213	496	28	42.14	4.23	46.97
chr4	153803851	153805416	1566	833	41	35.19	4.48	47.12
chr4	154040927	154042793	1867	1087	40	30.34	4.59	51.65
chr4	154264984	154268077	3094	555	87	33.89	3.83	48.62
chr4	154274854	154277471	2618	855	75	41.17	4.07	46.46
chr4	154369042	154370568	1527	286	41	44.14	5.14	48.04
chr4	154461753	154463576	1824	633	39	30.05	3.7	51.46

chr4	154611620	154612760	1141	340	26	31.18	4.45	50.55
chr4	154739432	154741603	2172	1392	46	36.14	4.85	46.99
chr4	154749342	154750368	1027	494	26	36.91	5.43	46.78
chr4	154840922	154842973	2052	1651	54	96.07	7.39	32
chr4	154882833	154884148	1316	731	32	40.33	4.94	46.87
chr4	154901691	154903926	2236	941	55	61.3	4.33	54.94
chr4	154964396	154965586	1191	555	28	33.72	4.65	48.62
chr4	155171580	155173318	1739	635	40	41.99	4.28	47.15
chr4	155328285	155330457	2173	720	49	33.22	5.42	49.17
chr4	155357546	155359004	1459	609	36	32.13	3.71	49.82
chr4	155378692	155379714	1023	525	26	37.77	4.45	46.66
chr4	155384655	155386341	1687	530	35	34.83	3.77	47.55
chr4	155530534	155531486	953	272	30	39.71	4.44	46.61
chr4	155631913	155633219	1307	635	32	35.48	5.2	47.4
chr4	155727465	155730646	3182	1483	71	33.87	2.9	48.63
chr4	156007638	156008909	1272	786	33	34.33	4.68	47.8
chr4	156264644	156267752	3109	1384	79	66.45	4.89	54.43
chr4	156370178	156372391	2214	509	53	32.19	3.35	49.98
chr4	156576862	156580942	4081	1241	110	34.92	3.83	47.59
chr4	156834465	156836095	1631	1031	45	40.54	4.48	46.91
chr4	156925209	156927472	2264	509	56	30.13	3.42	51.66
chr4	156985476	156986780	1305	1051	38	61.57	4.99	53.23
chr4	157258058	157259807	1750	1460	40	30.64	3.17	51.19
chr4	157276150	157278210	2061	280	52	47.5	4.89	48.68
chr4	157315156	157317920	2765	2209	65	53.06	4.58	51.24
chr4	157339224	157340053	830	262	20	33.69	4.42	48.59
chr4	157444903	157446388	1486	777	38	40.91	4.51	46.43
chr4	157451277	157452875	1599	1126	40	30.78	4.48	50.97
chr4	157532936	157534617	1682	1155	38	33.27	3.7	48.96
chr4	157704851	157706423	1573	1029	33	30.58	4.45	51.2
chr4	157826808	157828396	1589	1352	33	32.94	4.11	49.38
chr4	157903417	157904812	1396	620	34	44.82	5.3	48.88
chr4	157922164	157923616	1453	858	34	31.3	3.36	50.33
chr4	158064695	158066145	1451	285	30	37.35	4.23	46.84
chr4	158352741	158354297	1557	1266	35	35.42	3.99	47.53
chr4	158371974	158373196	1223	601	25	34.14	5.75	47.98
chr4	158373427	158374489	1063	679	21	30.55	4.11	51.18
chr4	158385746	158387620	1875	583	36	51.42	5.75	51.56
chr4	158514492	158516224	1733	754	36	34.34	3.84	47.88
chr4	158909189	158911757	2569	1959	59	34.24	3.16	47.91
chr4	158960606	158961617	1012	378	25	42.42	5.45	47.18
chr4	158987649	158988583	935	549	25	33.64	4.67	48.78
chr4	159095977	159097071	1095	509	32	43.4	4.28	47.78
chr4	159232727	159233430	704	271	20	37.49	6.04	46.01
chr4	159252578	159253618	1041	612	26	33.71	3.91	48.58
chr4	159358788	159359837	1050	356	25	40.81	4.72	46.33
chr4	159391253	159392606	1354	564	29	30.88	4.79	50.82
chr4	159439750	159441902	2153	808	48	30.81	3.96	50.97
chr4	159488409	159489941	1533	895	39	58.05	5.05	53.02
chr4	159537596	159539160	1565	1186	38	44.24	4.61	48.32
chr4	159588850	159591199	2350	1695	65	31.87	3.23	49.78
chr4	159597471	159599869	2399	1076	57	33.2	3.14	49.11

chr4	159696363	159698548	2186	930	49	38.92	3.36	46.27
chr4	159865149	159865882	734	378	19	30.64	4.32	51.17
chr4	159952324	159953957	1634	363	40	47.48	3.62	48.64
chr4	160219975	160221423	1449	856	36	34.47	5.27	47.77
chr4	160263799	160264976	1178	747	28	33.8	5.93	48.84
chr4	160576704	160577923	1220	676	36	79.6	8.22	58.93
chr4	160587085	160588200	1116	496	27	48.26	6.16	49.31
chr4	160603407	160604457	1051	283	25	34.76	5.35	47.62
chr4	160611730	160613328	1599	697	39	59.2	6.85	53.53
chr4	160683811	160685389	1579	911	41	41.2	4.57	46.6
chr4	160945014	160945860	847	289	20	38.39	6.98	46.28
chr4	161021833	161022962	1130	495	26	31.75	4.45	49.78
chr4	161101878	161102828	951	365	21	31.78	5.65	49.88
chr4	161117784	161119076	1293	509	28	30.48	4.45	51.25
chr4	161132424	161133596	1173	626	28	32.29	4.48	50.11
chr4	161235107	161236378	1272	827	27	39.38	6.16	46.86
chr4	161352465	161354424	1960	1289	45	49.85	4.54	51.74
chr4	161387581	161389535	1955	1255	44	44.83	4.45	48.88
chr4	161626593	161629524	2932	2657	72	77.62	5.93	56.72
chr4	161698393	161699597	1205	504	32	30.85	3.16	50.92
chr4	161874013	161875623	1611	565	33	31.99	4.11	49.83
chr4	162206342	162208108	1767	463	45	68.44	6.02	56.15
chr4	162342890	162344172	1283	666	28	30.95	6.16	50.56
chr4	162382812	162384509	1698	1426	41	42.45	3.74	47.35
chr4	162403305	162404564	1260	640	28	38.81	5.33	46.11
chr4	162409926	162410800	875	323	20	30.48	4.01	51.27
chr4	162484282	162486141	1860	679	40	36.39	3.95	47.2
chr4	162582049	162583556	1508	900	34	36.66	5.14	47.03
chr4	162616357	162617589	1233	447	30	31.97	4.52	49.83
chr4	162688685	162690980	2296	1416	53	59.24	4.15	54.07
chr4	162770313	162771598	1286	425	29	42.83	4.67	47.34
chr4	162915030	162916315	1286	599	32	45.05	5.48	49.16
chr4	163089100	163091025	1926	1325	44	32.51	4.1	49.37
chr4	163200397	163201998	1602	277	37	40.51	3.69	46.96
chr4	163242183	163243559	1377	518	33	46.21	4.47	48.58
chr4	163247668	163249412	1745	1078	37	44.67	4.62	48.8
chr4	163279853	163282132	2280	1240	51	42.25	4.05	47.06
chr4	163326340	163327572	1233	703	31	58.84	7.39	52.6
chr4	163445549	163447002	1454	1233	33	37.4	3.49	46.72
chr4	163719348	163721532	2185	786	52	54.51	5.86	54.24
chr4	163849175	163852051	2877	729	67	78.49	5.46	59.02
chr4	164009122	164010929	1808	1195	43	34.91	4.68	47.61
chr4	164043637	164045006	1370	780	32	35.38	6.4	47.58
chr4	164049073	164051455	2383	799	55	44.44	3.98	48.52
chr4	164241562	164242989	1428	442	31	31.93	3.99	49.74
chr4	164271974	164273715	1742	255	40	37.9	4.08	46.6
chr4	164311512	164314086	2575	1916	63	31.2	4.31	50.55
chr4	164568672	164571235	2564	1357	64	32.86	4.03	49.3
chr4	164601561	164603619	2059	644	55	36.63	4.65	46.97
chr4	164720566	164721668	1103	594	27	34.38	4.61	47.8
chr4	164812908	164814146	1239	658	29	36.59	6.51	46.91
chr4	164881765	164883081	1317	738	32	36.21	4.36	46.97



chr4	165011314	165012685	1372	498	33	44.01	3.97	48.09
chr4	165044099	165046161	2063	568	49	30.8	3.16	51.02
chr4	165095344	165097615	2272	1243	50	31.82	3.42	49.82
chr4	165129376	165130606	1231	782	30	40.7	4.79	46.52
chr4	165286900	165289038	2139	710	51	39.16	4.25	46.23
chr4	165471288	165472182	895	606	19	31.27	5.75	50.46
chr4	165510202	165511561	1360	820	37	71.79	8.06	56.57
chr4	165513070	165514328	1259	641	30	52.62	6.57	50.32
chr4	165526791	165528385	1595	911	42	54.32	5.44	54.55
chr4	165569227	165570454	1228	388	27	35.33	4.47	47.49
chr4	165697781	165699088	1308	653	31	30.47	4.47	51.23
chr4	165926665	165927892	1228	617	29	42.18	5.16	47.13
chr4	166181854	166183682	1829	1011	50	32.44	4.17	49.57
chr4	166346403	166347453	1051	361	23	33.34	5.18	48.72
chr4	166399015	166400099	1085	640	25	31.15	4.84	50.61
chr4	166502852	166503903	1052	541	22	31.08	6.57	50.76
chr4	166605897	166607968	2072	366	50	49	4.67	50.6
chr4	166743856	166745182	1327	592	26	32.99	6.57	49.21
chr4	166833770	166834621	852	269	19	33.68	5.34	48.55
chr4	166934979	166936030	1052	641	23	33.29	5.18	48.87
chr4	166943722	166944912	1191	670	34	49.7	5.12	51.54
chr4	166945647	166947064	1418	951	35	36.8	4.01	46.82
chr4	166970827	166972140	1314	726	29	32.76	4.79	49.39
chr4	167200314	167201877	1564	1043	38	39.65	4.67	46.46
chr4	167218146	167219399	1254	677	29	43.02	5.33	47.54
chr4	167248882	167250163	1282	679	30	31.5	4.36	49.88
chr4	167277336	167279429	2094	1516	50	31.95	3.16	49.8
chr4	167500498	167502257	1760	956	272	48.59	6.2	49.79
chr4	167599377	167600981	1605	723	46	64.22	6.02	54.4
chr4	173948208	173948860	653	261	16	32.67	4.93	49.42
chr4	174088126	174089008	883	257	19	31.92	6.16	49.72
chr4	181502764	181503578	815	305	19	35.92	4.93	47.05
chr4	187539149	187540871	1723	1126	39	55.25	5.11	53.3
chr4	187628839	187630809	1971	826	53	54.65	4.28	54.12
chr4	189859098	189859775	678	457	17	35.69	4.93	47.24
chr4	190517489	190520564	3076	624	83	36.22	3.42	46.96
chr4	190551098	190552920	1823	1064	52	30.14	4.04	51.63
chr4	190560545	190562804	2260	1623	76	32.25	3.6	50.02
chr4	190878958	190880421	1464	665	44	34.62	5.25	47.8
chr4	190893478	190894594	1117	608	50	55.53	4.99	53.93
chr4	190916900	190917887	988	602	25	32.59	5.49	49.43
chr5	9832	12463	2632	1456	4894	1376.04	2.9	0
chr5	302636	303519	884	279	21	40.55	4.52	46.93
chr5	789531	790426	896	272	19	31.21	6.16	50.51
chr5	974511	975370	860	291	20	37.57	7.39	45.96
chr5	1010480	1011313	834	510	18	30.49	5.34	51.26
chr5	1293811	1295477	1667	1131	35	46.5	5.34	47.97
chr5	1315222	1316438	1217	645	24	30.75	6.57	50.97
chr5	2563727	2564404	678	199	16	31.05	4.52	50.56
chr5	6588812	6590167	1356	900	38	78.97	7.39	58.33
chr5	7886866	7888125	1260	623	25	32.42	5.34	49.61
chr5	8106705	8107411	707	415	17	30.29	5.71	51.68

chr5	9032065	9032828	764	251	17	30.24	5.75	51.77
chr5	9311732	9312513	782	311	18	33.52	6.16	48.58
chr5	10381417	10382939	1523	1314	36	35.35	3.42	47.47
chr5	10912476	10913076	601	303	15	31.47	4.93	49.96
chr5	11351752	11352554	803	521	23	46.4	5.33	48.43
chr5	11357716	11358625	910	461	19	30.47	4.52	51.26
chr5	11485798	11486721	924	279	24	47.16	5.34	47.49
chr5	11725964	11726854	891	344	19	31.48	4.52	49.85
chr5	12224400	12225219	820	533	18	31.28	4.11	50.36
chr5	12364798	12365518	721	478	17	32.85	5.34	49.39
chr5	12689565	12690337	773	257	18	30.19	4.92	51.73
chr5	13033468	13034402	935	704	21	37.39	4.52	46.67
chr5	13083990	13085091	1102	814	23	32.45	6.16	49.54
chr5	13149774	13150531	758	263	17	30.59	4.93	51.24
chr5	13154414	13155376	963	285	20	31.69	4.93	49.8
chr5	15703228	15704210	983	589	20	30.66	4.52	51.1
chr5	16162806	16163590	785	365	19	37.84	6.16	46.76
chr5	17165186	17166079	894	628	23	44.5	4.93	48.63
chr5	17953654	17954569	916	682	19	30.15	4.93	51.66
chr5	18055216	18055750	535	267	18	54.21	7.39	53.5
chr5	18347013	18347849	837	291	18	30.33	4.11	51.59
chr5	18757021	18757569	549	274	15	37.66	6.16	46.06
chr5	19225641	19226883	1243	466	31	31.02	5.14	50.51
chr5	19334436	19335253	818	499	21	44.62	5.71	48.88
chr5	19779187	19780065	879	606	19	32.14	5.34	49.88
chr5	20187289	20188224	936	386	21	37.33	5.75	46.7
chr5	20498264	20499330	1067	456	29	47.07	6.16	47.51
chr5	20538791	20539732	942	661	20	32.8	5.34	49.45
chr5	20583718	20585239	1522	1124	31	41.7	5.3	47.22
chr5	20929000	20930319	1320	559	31	47.23	4.57	47.99
chr5	20972188	20972985	798	540	19	37	4.52	46.97
chr5	21368526	21369796	1271	760	26	35.59	5.75	47.16
chr5	21453711	21454608	898	623	21	39.65	4.52	46.42
chr5	21613062	21614155	1094	536	25	40.91	5.34	46.35
chr5	21642818	21643719	902	434	21	39.4	5.34	46.96
chr5	21751599	21752481	883	495	19	31.92	4.93	49.72
chr5	22055366	22056389	1024	546	21	32.49	4.93	49.45
chr5	22172637	22174059	1423	803	27	32.32	5.75	50.01
chr5	22310980	22311799	820	457	19	31.8	5.33	49.83
chr5	22689513	22690273	761	290	17	30.42	4.93	51.28
chr5	22745004	22746545	1542	732	38	48.91	6.51	50.32
chr5	22829915	22830785	871	587	19	32.59	4.93	49.42
chr5	23065521	23066394	874	282	23	30.03	5.92	51.48
chr5	23130263	23132205	1943	605	41	55.65	4.93	53.86
chr5	23535667	23537061	1395	738	27	33.53	6.16	48.67
chr5	23590250	23591023	774	510	18	30.41	4.95	51.4
chr5	23618623	23619438	816	477	19	35.85	5.75	46.94
chr5	24732558	24733868	1311	802	30	49.49	4.93	51.57
chr5	25181972	25182964	993	291	21	33.09	4.83	49.14
chr5	25352342	25354304	1963	1354	37	40.38	5.34	46.8
chr5	25954557	25955797	1241	574	30	43.82	7.21	47.96
chr5	26166545	26167461	917	281	19	30.1	4.11	51.55

chr5	26175622	26176387	766	273	19	39.12	5.34	46.31
chr5	26412391	26413961	1571	631	36	33.07	4.05	49.2
chr5	26592307	26593020	714	455	18	37.97	5.34	46.38
chr5	27871274	27871961	688	424	16	30.42	5.34	51.34
chr5	28362911	28363653	743	264	17	31.49	5.75	49.89
chr5	28414944	28416012	1069	624	24	38.15	5.34	46.25
chr5	29131944	29132614	671	285	17	36.18	4.52	46.87
chr5	29349842	29350966	1125	845	24	35.16	5.34	47.08
chr5	29668597	29669397	801	289	22	45.86	6.12	50.15
chr5	30064671	30065675	1005	284	22	33.48	4.93	48.6
chr5	30492464	30493663	1200	563	25	30.84	5.33	50.9
chr5	30568005	30569151	1147	506	26	42.08	7.39	47
chr5	30719243	30720618	1376	583	30	45.83	6.16	50
chr5	30791611	30792854	1244	672	26	32.29	4.19	50.08
chr5	30900762	30901652	891	664	20	35.69	4.52	47.24
chr5	32118410	32120053	1644	1065	34	37.24	4.52	46.73
chr5	32150310	32151402	1093	642	28	35	3.74	47.62
chr5	32225904	32226791	888	601	23	44.92	5.75	48.8
chr5	32255877	32257210	1334	564	30	41.7	5.65	47.19
chr5	32274642	32275768	1127	684	28	39.22	6.16	46.43
chr5	33151444	33152434	991	264	22	32.58	4.38	49.32
chr5	33372563	33373493	931	455	22	33.48	5.71	48.65
chr5	33453035	33453996	962	290	23	40.12	4.93	46.66
chr5	33819591	33820659	1069	472	22	30.26	5.75	51.61
chr5	34235553	34236445	893	373	21	31.73	4.94	49.76
chr5	34363938	34365336	1399	760	28	36.95	6.98	46.95
chr5	35047065	35047904	840	415	22	43.5	6.57	48.04
chr5	35241567	35242467	901	645	20	35.1	4.93	47.35
chr5	35479534	35480599	1066	439	22	30.4	5.34	51.46
chr5	35705819	35707038	1220	517	28	46.31	6.16	48.52
chr5	36537919	36538644	726	274	17	32.53	4.52	49.39
chr5	36550271	36551354	1084	500	24	37.32	6.16	46.68
chr5	36944908	36946372	1465	942	37	39.47	5.76	47.08
chr5	37004314	37005860	1547	1287	31	34.87	4.52	47.59
chr5	37076667	37077546	880	331	22	40.38	5.3	46.82
chr5	37185030	37185743	714	224	18	34.21	4.95	47.93
chr5	37675840	37676881	1042	440	24	38.52	4.83	46.23
chr5	38479053	38480227	1175	492	24	30.98	7.57	50.45
chr5	38502536	38503541	1006	365	21	33.42	4.93	48.69
chr5	38717408	38718230	823	337	18	31.11	5.75	50.68
chr5	39031817	39032853	1037	459	26	31.2	5.6	50.52
chr5	39104215	39104973	759	291	17	30.54	4.93	51.22
chr5	39295381	39297379	1999	1405	35	30.99	4.11	50.48
chr5	39963401	39964261	861	209	20	37.11	4.48	46.97
chr5	40015030	40016492	1463	486	32	49.21	4.93	50.84
chr5	40394029	40394784	756	271	20	44.7	4.93	48.8
chr5	40554066	40554904	839	616	18	30.22	6.16	51.69
chr5	41065709	41067057	1349	714	27	35.61	6.98	47.3
chr5	41499826	41500768	943	503	20	32.75	5.75	49.37
chr5	42070233	42071178	946	626	22	36.75	5.34	46.92
chr5	42261837	42262674	838	254	19	34.51	4.52	47.68
chr5	42413559	42414651	1093	557	23	32.89	5.75	49.36

chr5	42527901	42528903	1003	741	25	46.49	6.16	48.01
chr5	42748076	42749190	1115	529	23	31.81	4.93	49.81
chr5	42854637	42855538	902	684	21	35.17	4.95	47.1
chr5	42945382	42946663	1282	695	34	58.1	4.95	53.76
chr5	42981014	42981629	616	333	18	45.58	6.98	50.22
chr5	43017266	43018838	1573	991	47	36.75	4.34	46.97
chr5	43120201	43122236	2036	1228	51	37.03	3.69	46.98
chr5	43195516	43196586	1071	477	23	31.08	3.89	50.76
chr5	43196823	43198170	1348	651	30	34.45	6.16	47.75
chr5	44327835	44328662	828	275	20	39.62	5.34	46.59
chr5	44458766	44459705	940	665	21	37.1	4.52	46.88
chr5	44916042	44917546	1505	704	34	30.14	5.29	51.63
chr5	45328097	45329143	1047	608	23	31.09	6.47	50.7
chr5	45860330	45861612	1283	590	29	41.41	4.95	46.96
chr5	49510927	49511827	901	472	20	30.1	5.21	51.55
chr5	49704188	49705866	1679	928	38	43.33	3.84	47.87
chr5	50022018	50022842	825	243	19	35.3	4.11	47.33
chr5	50111238	50112631	1394	870	30	44.87	5.75	48.87
chr5	50362191	50363139	949	681	21	36.57	4.52	46.89
chr5	50443184	50444564	1381	622	28	37.8	5.75	46.67
chr5	50485135	50486659	1525	829	36	58.19	6.98	54.08
chr5	50559434	50560345	912	636	21	38.78	4.52	46.06
chr5	50570352	50571349	998	367	22	33.85	4.52	48.73
chr5	50749131	50749953	823	567	18	31.11	5.34	50.68
chr5	50894640	50895638	999	419	21	33.79	4.52	48.82
chr5	51017973	51018987	1015	527	24	41.27	4.93	46.9
chr5	51477420	51478167	748	282	17	31.19	4.93	50.55
chr5	51726421	51727175	755	560	18	35.21	4.93	47.17
chr5	52081207	52082232	1026	520	25	45.01	5.34	49.03
chr5	52226355	52227266	912	636	20	34.47	4.52	47.74
chr5	52515590	52516182	593	277	15	32.02	5.75	49.77
chr5	52558528	52559598	1071	272	22	30.16	4.11	51.62
chr5	52985429	52986102	674	271	16	31.3	5.75	50.33
chr5	53069796	53071107	1312	538	29	45.26	6.57	49.25
chr5	53513134	53514160	1027	270	23	32.12	4.95	49.74
chr5	53538940	53539996	1057	800	25	38.3	6.09	46.39
chr5	53713885	53714940	1056	722	28	37.22	4.98	46.81
chr5	53749741	53750614	874	654	20	36.71	5.75	46.91
chr5	53812705	53813869	1165	591	26	41.07	5.34	46.37
chr5	54288978	54289807	830	573	18	30.71	4.52	50.99
chr5	54572107	54573081	975	689	24	39.08	4.57	46.3
chr5	54644756	54645894	1139	705	27	31.28	5.82	50.45
chr5	54982251	54983114	864	256	21	37.53	4.95	45.97
chr5	55016518	55017261	744	287	18	35.93	6.98	47.06
chr5	55153481	55154394	914	221	23	33.57	4.17	48.64
chr5	55234300	55236093	1794	437	39	31.95	4.36	49.8
chr5	55302274	55303192	919	570	23	42.83	6.57	47.28
chr5	55657693	55658798	1106	553	23	32.25	5.34	50.03
chr5	55675350	55676492	1143	636	24	33.16	6.45	49.17
chr5	55737673	55738835	1163	770	27	33.54	4.79	48.67
chr5	55766997	55768332	1336	619	28	34.99	5.33	47.59
chr5	56085631	56086325	695	282	19	44.34	5.75	48.43

chr5	56167021	56168368	1348	834	39	66.64	6.92	55.26
chr5	56207493	56209257	1765	1245	38	36.05	5.04	46.93
chr5	56594863	56596019	1157	570	26	30.38	5.48	51.64
chr5	56827916	56828901	986	639	20	30.51	4.93	51.28
chr5	57023852	57024844	993	748	23	33.35	4.52	48.69
chr5	57278911	57280086	1176	595	26	40.46	6.16	46.92
chr5	57694698	57695816	1119	608	25	39.5	6.57	47
chr5	57726143	57727280	1138	629	25	38.46	5.34	46.38
chr5	57731265	57732433	1169	749	29	53.89	6.16	52.64
chr5	57772445	57773232	788	285	20	42.36	5.75	46.98
chr5	58000676	58001510	835	380	19	32.58	5.51	49.33
chr5	58138128	58139134	1007	533	22	33.37	5.75	48.68
chr5	58256637	58257526	890	632	20	35.75	4.93	47.03
chr5	58747180	58747960	781	507	20	42.86	6.16	47.25
chr5	58876297	58877350	1054	574	23	34.89	5.34	47.58
chr5	59091884	59093203	1320	736	30	43.26	5.71	47.81
chr5	59402725	59403671	947	664	24	45.59	6.16	50.3
chr5	59420270	59422142	1873	1295	38	36.06	4.63	47.04
chr5	59456183	59457353	1171	489	24	30.53	5.12	51.25
chr5	59565403	59567023	1621	612	31	37.71	4.93	46.48
chr5	59708938	59709855	918	644	23	42.9	6.16	47.37
chr5	59853292	59854324	1033	468	22	32.03	4.93	49.77
chr5	59921517	59922510	994	254	22	31.22	4.28	50.53
chr5	60378248	60379765	1518	1099	37	38.79	4.36	46.08
chr5	60412051	60413090	1040	704	25	44.13	4.93	47.92
chr5	60457721	60458540	820	431	19	31.8	6.09	49.83
chr5	60900750	60901802	1053	540	23	34.95	5.75	47.67
chr5	61534911	61535792	882	590	19	31.98	5.34	49.78
chr5	61653507	61654452	946	366	24	38.92	5.52	46.29
chr5	62052355	62053705	1351	643	32	55.73	5.75	53.79
chr5	62188969	62189913	945	690	20	32.64	4.11	49.32
chr5	62447382	62448392	1011	509	24	38.94	5.12	46.21
chr5	62905003	62907041	2039	1340	43	47.37	5.71	48.48
chr5	63647392	63648162	771	555	18	30.59	4.19	51.24
chr5	63664681	63665394	714	503	17	33.29	3.7	48.83
chr5	63680529	63681305	777	281	20	33.35	3.42	48.7
chr5	64024655	64026044	1390	583	26	30.29	6.57	51.69
chr5	64040532	64041823	1292	478	28	31.13	5.19	50.64
chr5	64472457	64473364	908	621	19	30.57	4.93	51.17
chr5	64595056	64595963	908	265	20	34.7	4.52	47.74
chr5	64614655	64615496	842	473	18	30.05	4.52	51.39
chr5	64735882	64737135	1254	481	30	39.39	4.79	46.93
chr5	64737507	64738104	598	287	16	36.58	6.16	46.88
chr5	65232311	65233613	1303	566	29	43.53	5.58	48.12
chr5	65331971	65333653	1683	463	47	63.93	4.8	53.73
chr5	65339430	65340668	1239	305	34	37.7	3.42	46.55
chr5	65346481	65348159	1679	1311	37	39.95	4.19	46.71
chr5	65421603	65422367	765	401	18	34.57	5.34	47.72
chr5	66325728	66326642	915	272	23	43.1	5.75	47.16
chr5	66970194	66971189	996	383	21	33.95	5.75	48.63
chr5	67556426	67557551	1126	706	26	43.29	5.34	48
chr5	67641607	67642411	805	550	18	32.14	4.11	49.83

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chr5	68389851	68390875	1025	554	26	31.88	4.67	49.82
chr5	68614254	68615020	767	395	19	39.05	6.16	46.26
chr5	68798743	68799610	868	617	21	36.67	5.27	47.01
chr5	68866780	68869930	3151	1627	73	68.58	4.8	55.81
chr5	69087476	69088361	886	602	25	36.83	4.05	46.9
chr5	69262774	69264640	1867	1211	42	32.32	4.39	50.01
chr5	69593324	69596601	3278	912	80	43.31	3.55	48.07
chr5	69800478	69801455	978	700	22	34.93	5.34	47.58
chr5	70008621	70010673	2053	1474	54	34.41	3.91	47.75
chr5	70161473	70162941	1469	1218	31	36.95	3.68	46.92
chr5	70238454	70240686	2233	936	49	55.6	3.68	53.95
chr5	70381855	70383006	1152	781	28	42.67	5.89	47.38
chr5	70455745	70457444	1700	527	41	31.18	3.81	50.57
chr5	70687419	70688642	1224	488	29	44.75	5.33	48.92
chr5	71065790	71067617	1828	1405	33	35.89	4.93	46.94
chr5	71306350	71307417	1068	684	23	34.16	5.75	48.02
chr5	71347135	71348328	1194	610	26	39.49	4.93	46.95
chr5	71940524	71941044	521	260	15	42.93	6.16	47.38
chr5	72111479	72112918	1440	943	41	30.54	4.34	51.26
chr5	73638160	73639513	1354	741	26	31.81	6.57	49.83
chr5	73897256	73898175	920	566	21	38.29	5.34	46.31
chr5	74098624	74099563	940	685	22	34.16	4.67	48.03
chr5	74119841	74120818	978	386	20	30.91	4.11	50.61
chr5	74517885	74518801	917	574	19	30.1	4.52	51.55
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chr5	75374275	75374962	688	404	17	35.01	5.75	47.55
chr5	75647824	75648924	1101	417	27	49.22	6.16	50.95
chr5	75915370	75916352	983	702	26	52.57	6.57	50.24
chr5	76548061	76549653	1593	1050	30	38.94	4.11	46.13
chr5	76636593	76637337	745	248	17	31.37	4.11	50.22
chr5	76885385	76886006	622	290	16	30.99	5.65	50.5
chr5	76991764	76993108	1345	653	31	45.79	6.47	50
chr5	77080147	77082277	2131	692	51	40.33	4.28	46.85
chr5	77583679	77584768	1090	321	27	49.93	5.34	51.63
chr5	77990301	77991281	981	654	23	38.98	5.34	46.13
chr5	78221730	78222733	1004	535	21	33.53	6.16	48.64
chr5	78679291	78680861	1571	534	36	48.88	5.33	50.37
chr5	78737413	78738074	662	290	17	36.82	5.34	46.81
chr5	79574827	79575614	788	279	18	33.15	4.52	49.12
chr5	79819340	79820143	804	427	20	38.29	4.67	46.34
chr5	79899231	79900390	1160	621	25	37.29	6.16	46.71
chr5	79934595	79935602	1008	719	21	31.09	4.72	50.71
chr5	80061350	80062710	1361	951	31	30.78	4.36	50.99
chr5	80410474	80411696	1223	458	31	32.08	4.57	49.8
chr5	80814065	80816872	2808	1415	59	31.12	3.42	50.69
chr5	81162470	81163454	985	714	23	34.41	6.09	47.76
chr5	81193209	81194994	1786	337	33	32.14	4.19	49.9
chr5	81386115	81386827	713	440	18	34.28	5.71	47.83
chr5	81389820	81391073	1254	627	26	36.42	7.39	47.14
chr5	81393523	81394493	971	290	20	31.27	4.52	50.48
chr5	81550262	81551908	1647	1006	42	77.22	6.16	55.07

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chr5	82085815	82086874	1060	516	22	30.69	4.52	51.01
chr5	82357638	82358691	1054	475	22	30.98	6.16	50.46
chr5	82442499	82443369	871	464	20	36.89	6.16	46.68
chr5	82634003	82635466	1464	890	31	45.16	4.93	48.94
chr5	82683373	82684127	755	477	17	30.77	5.34	50.95
chr5	82702944	82704438	1495	274	32	41.6	4.19	47.18
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chr5	83127950	83129155	1206	531	25	30.56	6.09	51.26
chr5	84410093	84411646	1554	210	39	47.56	3.59	49.04
chr5	84485720	84487522	1803	1122	35	43.79	4.93	47.82
chr5	84662188	84663197	1010	395	24	41.57	8.22	47.23
chr5	84966543	84967260	718	380	17	33.04	5.75	49.11
chr5	85030068	85030818	751	276	20	45.08	7.39	48.88
chr5	85070461	85071144	684	400	16	30.67	4.93	50.97
chr5	85449947	85451208	1262	593	27	39.89	6.98	46.59
chr5	85775947	85776549	603	312	20	58.19	6.98	54.24
chr5	85932037	85933012	976	238	25	48.3	5.34	49.55
chr5	86610088	86611074	987	616	20	30.46	3.7	51.3
chr5	86611611	86612522	912	640	19	30.36	4.52	51.57
chr5	86678949	86680592	1644	1387	32	32.48	3.31	49.47
chr5	87170587	87171739	1153	586	25	37.66	5.75	46.07
chr5	87336364	87337959	1596	447	31	35.25	4.29	47.3
chr5	87548492	87550508	2017	482	42	31.1	3.74	50.62
chr5	87935204	87936127	924	345	22	33.88	4.19	48.6
chr5	88176032	88177351	1320	528	40	42	4.25	47.15
chr5	88624925	88626092	1168	348	25	36.88	4.93	46.69
chr5	88820056	88820813	758	380	19	39.68	6.16	46.53
chr5	89644158	89645179	1022	290	26	32.05	5.6	49.8
chr5	89658000	89659338	1339	597	30	47.88	6.16	49.14
chr5	89832218	89833045	828	264	18	30.83	6.16	50.88
chr5	89991079	89991997	919	289	20	34.07	5.34	48.23
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chr5	90396221	90397221	1001	749	24	37.51	4.57	46.05
chr5	91237044	91237942	899	435	19	31.05	4.52	50.69
chr5	91417403	91418427	1025	599	23	36.46	5.75	47.18
chr5	91610371	91611393	1023	473	24	40.79	5.75	46.36
chr5	91780759	91781516	758	227	18	35.02	4.52	47.53
chr5	92488923	92489911	989	329	21	34.33	6.57	47.78
chr5	92626165	92627009	845	383	19	34.09	4.52	48.17
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chr5	93949226	93950147	922	278	23	39.44	5.06	47.11
chr5	94039088	94040519	1432	784	33	48.44	5.58	49.14
chr5	94200225	94201141	917	634	19	30.1	4.93	51.55
chr5	94829182	94830663	1482	976	39	51.84	4.89	51.1
chr5	94916412	94917359	948	616	23	31.85	4.54	49.79
chr5	94971327	94972414	1088	434	23	33.14	5.75	49.16
chr5	94995713	94996927	1215	817	28	34.33	6.51	47.79
chr5	95288051	95288755	705	285	18	38.6	4.93	46.11
chr5	95376543	95377087	545	272	16	42.93	6.57	47.38
chr5	95402163	95403382	1220	809	27	42.14	6.57	46.95

chr5	95840288	95841540	1253	388	29	48.63	4.93	49.9
chr5	95988832	95991016	2185	643	50	52.42	4.41	50.54
chr5	96478481	96479446	966	500	24	34.05	4.84	48.52
chr5	96502617	96503984	1368	833	31	34.15	4.94	48.02
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chr5	96993225	96994114	890	239	20	31.81	4.95	49.81
chr5	97464693	97465527	835	242	18	30.44	5.75	51.32
chr5	98803689	98804522	834	580	18	30.49	5.34	51.26
chr5	98848381	98849553	1173	662	27	39.67	6.47	46.51
chr5	98912661	98913518	858	441	19	33.33	6.16	48.66
chr5	99152588	99153694	1107	493	28	53.41	6.57	51.64
chr5	99181703	99182680	978	690	21	30.9	4.95	50.66
chr5	99527185	99528024	840	266	18	30.16	5.75	51.72
chr5	99589965	99591417	1453	672	33	49.76	5.34	51.98
chr5	99904459	99905615	1157	618	24	33.56	6.57	48.56
chr5	100260720	100262349	1630	885	37	40.71	5.14	46.54
chr5	100538495	100539012	518	259	19	66.39	7.8	55
chr5	100626634	100627607	974	441	20	30.16	4.83	51.7
chr5	100855099	100856048	950	658	20	32.37	4.93	49.78
chr5	101638964	101639826	863	579	19	33.05	4.93	49.1
chr5	101641938	101642972	1035	696	23	35.91	4.52	47.04
chr5	101646158	101647056	899	257	19	31.05	4.93	50.69
chr5	101726859	101727865	1007	423	24	41.76	4.93	47.11
chr5	101863716	101864565	850	345	19	33.8	4.52	48.83
chr5	101890310	101891123	814	526	19	30.06	4.74	51.47
chr5	102398883	102399762	880	625	19	32.09	4.93	49.72
chr5	102551218	102552194	977	688	20	30.96	5.34	50.47
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chr5	103916226	103917262	1037	631	22	31.83	4.52	49.81
chr5	104148648	104149561	914	279	19	30.26	5.34	51.67
chr5	104620397	104621260	864	637	19	32.99	4.93	49.23
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chr5	104990966	104992038	1073	354	24	37.93	5.75	46.54
chr5	105105165	105105904	740	270	18	36.19	4.93	46.9
chr5	105110262	105111203	942	309	21	36.98	4.93	46.95
chr5	105154728	105155774	1047	364	21	31.33	4.11	50.27
chr5	105636042	105636897	856	571	19	33.45	5.34	48.63
chr5	105787088	105787916	829	540	19	35.05	5.75	47.49
chr5	105946055	105946650	596	306	15	31.82	5.75	49.82
chr5	106375177	106375970	794	372	18	32.79	5.34	49.41
chr5	106510764	106511474	711	285	17	33.48	5.75	48.67
chr5	106566208	106567120	913	257	21	38.72	4.93	46.27
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chr5	107466894	107467516	623	220	16	31.4	5.33	50.21
chr5	107596057	107597278	1222	587	29	33.08	4.48	49.16
chr5	107756183	107757099	917	291	22	36.12	5.12	46.98
chr5	107981413	107982219	807	262	23	46.09	5.71	49.41
chr5	109544911	109545588	678	229	19	45.71	6.16	49.85
chr5	109628529	109629574	1046	559	21	31.38	4.93	50.17
chr5	109655550	109657042	1493	1100	33	44.21	4.33	48.14



chr5	110044490	110045347	858	456	22	32.23	5.14	50
chr5	110103188	110104349	1162	642	24	33.32	6.16	48.76
chr5	110231968	110233578	1611	502	35	43.1	5.33	47.21
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chr5	110385142	110385896	755	480	19	39.88	5.75	46.64
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chr5	111044927	111045986	1060	671	21	30.69	5.34	51.01
chr5	111203540	111204258	719	508	18	35.52	5.12	47.27
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chr5	111669557	111670497	941	705	23	41.42	5.75	47.09
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chr5	112173319	112180308	6990	4815	187	72.19	4.58	58.06
chr5	112215769	112216984	1216	582	27	38.06	4.62	46.41
chr5	112437118	112438452	1335	557	33	48.66	4.84	50.16
chr5	112640005	112640964	960	440	24	44.73	6.16	48.83
chr5	112799884	112801034	1151	695	25	37.77	6.98	46.62
chr5	112915093	112916165	1073	581	24	35.44	6.69	47.41
chr5	112931599	112932663	1065	371	29	34.55	5.14	47.81
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chr5	113685433	113686460	1028	752	22	32.28	4.52	50.03
chr5	113704833	113705702	870	618	20	36.95	4.52	46.89
chr5	114225878	114227447	1570	288	38	47.34	3.77	48.26
chr5	114238239	114239452	1214	620	24	30.89	6.98	50.79
chr5	114402324	114403914	1591	343	32	37.05	4.95	47.05
chr5	114467593	114468708	1116	567	24	35.62	5.75	47.31
chr5	114745132	114746710	1579	262	33	43.25	3.7	47.78
chr5	114833728	114834924	1197	470	24	31.66	5.75	49.84
chr5	114850032	114850909	878	277	19	31.84	5.3	49.77
chr5	115204770	115205905	1136	328	31	56.58	4.79	53.48
chr5	115235648	115236912	1265	575	31	42.49	3.77	47.31
chr5	115270309	115271113	805	538	18	32.14	5.34	49.83
chr5	115273425	115274480	1056	636	21	30.89	4.52	50.76
chr5	115309963	115310651	689	354	18	39.76	6.16	46.71
chr5	115478126	115479478	1353	687	37	48.28	6.85	49.36
chr5	115608608	115609588	981	577	23	32.83	4.79	49.43
chr5	115667064	115668590	1527	237	33	45.83	4.11	49.92
chr5	116048423	116049309	887	671	19	31.7	4.52	49.74
chr5	116128053	116129180	1128	489	24	35.01	5.34	47.55
chr5	116446291	116447122	832	548	19	34.87	5.75	47.65
chr5	116586361	116587530	1170	427	24	32.93	4.52	49.34
chr5	116660628	116661439	812	264	19	32.28	4.19	50.06
chr5	116885450	116886347	898	607	19	31.11	4.52	50.64
chr5	117571961	117572620	660	468	16	32.21	5.34	49.94
chr5	117840502	117841326	825	549	18	30.99	4.11	50.47
chr5	118200613	118201856	1244	449	28	39.67	4.95	46.5
chr5	118234682	118236312	1631	1255	30	37.27	4.52	46.55
chr5	118329428	118330449	1022	690	23	30.07	4.37	51.47
chr5	118609370	118611548	2179	1588	49	30.23	4.18	51.74
chr5	118974575	118975414	840	523	18	30.16	4.52	51.72
chr5	118997716	118999293	1578	1060	30	36.08	4.52	46.95

chr5	119092550	119094423	1874	422	40	55.28	5.34	53.42
chr5	119271782	119272654	873	607	20	36.77	5.75	46.92
chr5	119567334	119568089	756	539	17	30.71	4.11	51.03
chr5	119583301	119584119	819	500	20	40.22	6.98	46.76
chr5	119798287	119799227	941	559	21	35.98	4.83	47.09
chr5	120839561	120840464	904	435	19	30.79	5.34	50.91
chr5	121090086	121090889	804	495	19	32.77	5.33	49.41
chr5	121238772	121240525	1754	507	37	34.99	4.11	47.62
chr5	121780300	121781249	950	468	20	32.37	5.34	49.78
chr5	121865721	121866511	791	219	18	32.62	6.12	49.43
chr5	122161599	122162454	856	278	21	42.4	6.16	47.09
chr5	122958336	122959492	1157	516	28	50.14	6.57	51.5
chr5	123311805	123313137	1333	635	26	32.72	5.75	49.39
chr5	123527136	123528052	917	633	19	30.1	4.52	51.55
chr5	123741719	123742284	566	283	15	37.66	6.16	46.06
chr5	123957027	123957916	890	621	19	31.54	5.34	49.9
chr5	124023465	124025264	1800	702	32	37.01	4.93	46.96
chr5	124429659	124430255	597	319	15	31.75	4.93	49.78
chr5	125143254	125144729	1476	606	32	48.5	4.52	49.54
chr5	125317000	125317948	949	688	20	32.43	5.34	49.57
chr5	125345367	125346215	849	227	20	38.26	5.75	46.3
chr5	125944075	125944842	768	501	19	37.98	5.24	46.4
chr5	126234333	126235174	842	239	18	30.05	4.11	51.39
chr5	126308503	126309178	676	393	17	33.85	5.51	48.76
chr5	126408274	126409752	1479	905	32	48.34	5.34	49.3
chr5	126717868	126720417	2550	593	54	36.72	3.74	47
chr5	126873693	126876106	2414	628	62	46.87	3.72	47.4
chr5	126908826	126909980	1155	450	26	41.63	4.52	47.13
chr5	127046499	127047447	949	470	22	34.26	4.72	47.89
chr5	127065006	127067300	2295	583	42	43.54	5.34	48.03
chr5	127270611	127271414	804	250	20	37.08	4.19	46.94
chr5	127371397	127374258	2862	456	70	59.86	4.76	56.64
chr5	127464542	127465720	1179	467	34	41.42	5.71	47.05
chr5	127483041	127484681	1641	928	43	44.79	5.06	48.99
chr5	127793155	127794602	1448	267	32	50.03	5.34	51.84
chr5	127857600	127858622	1023	576	21	32.54	5.34	49.37
chr5	128007732	128008520	789	515	18	33.09	4.11	49.16
chr5	128312686	128313258	573	286	15	32.66	6.16	49.32
chr5	128408332	128409324	993	356	21	34.12	4.93	48.07
chr5	128816671	128817617	947	571	23	41.04	6.16	46.42
chr5	129044601	129045554	954	724	20	32.16	4.11	49.86
chr5	129611734	129612690	957	564	20	32	4.52	49.74
chr5	129680586	129681915	1330	495	28	34.57	5.27	47.74
chr5	129774899	129776417	1519	1001	34	50.21	5.75	51.51
chr5	129797279	129798204	926	541	20	33.68	5.75	48.64
chr5	129822809	129823623	815	478	19	35.92	5.34	47.05
chr5	129904421	129905214	794	482	19	37.25	4.93	46.46
chr5	130600806	130602303	1498	1183	34	31.7	3.49	49.76
chr5	130744808	130746257	1450	493	31	43.55	5.18	47.97
chr5	130764571	130765824	1254	504	29	43.02	5.33	47.54
chr5	131823475	131824489	1015	275	23	30.43	4.37	51.29
chr5	131974309	131975043	735	450	18	36.53	6.57	46.94

chr5	132958114	132958988	875	627	19	32.37	4.52	49.85
chr5	133713791	133715146	1356	651	28	39.01	6.57	46.14
chr5	134223200	134224184	985	417	21	32.29	4.33	50.09
chr5	134291229	134291994	766	276	18	31.94	4.28	49.76
chr5	134730298	134731303	1006	578	24	34.09	5.41	48.17
chr5	134993083	134993814	732	346	17	32.16	5.34	49.88
chr5	135283589	135284412	824	352	18	31.05	4.93	50.62
chr5	136578936	136579927	992	278	20	30.21	5.75	51.73
chr5	136911895	136912646	752	268	19	36.12	6.09	46.97
chr5	137158057	137158851	795	242	19	37.19	6.16	46.82
chr5	137889191	137891075	1885	1342	47	40.58	3.71	46.88
chr5	138175499	138176392	894	288	19	31.32	4.11	50.32
chr5	138549636	138550765	1130	558	24	34.91	5.34	47.61
chr5	139255084	139255901	818	558	19	35.73	5.75	47.2
chr5	139813372	139814151	780	410	20	37.53	4.84	45.95
chr5	139862527	139863900	1374	934	32	35.18	3.52	47.09
chr5	140043649	140045152	1504	285	37	47.61	4.81	48.94
chr5	140086929	140087812	884	606	19	31.87	5.75	49.75
chr5	140224626	140225753	1128	665	23	30.17	4.83	51.66
chr5	140326923	140328768	1846	1565	39	40.46	3.92	46.9
chr5	140653155	140653996	842	217	19	34.27	4.11	47.84
chr5	140822716	140823634	919	655	22	38.35	4.52	46.36
chr5	141118294	141119196	903	285	21	39.34	5.34	46.61
chr5	141119985	141120895	911	621	21	38.84	6.57	46.22
chr5	141302849	141304324	1476	760	42	43.29	6.06	47.97
chr5	141432102	141432746	645	370	20	54.06	7.8	52.88
chr5	141487732	141488916	1185	870	30	36.71	3.74	46.98
chr5	141527046	141527895	850	429	21	35.46	4.69	47.4
chr5	142098709	142099614	906	236	19	30.68	5.34	51.01
chr5	143409795	143410622	828	509	23	49.26	6.57	51.13
chr5	143473784	143474755	972	470	20	31.22	4.93	50.59
chr5	143573648	143574322	675	263	20	38.71	5.27	46.25
chr5	143635766	143636454	689	399	20	50.1	7.8	51.74
chr5	143639353	143640278	926	246	20	33.68	4.11	48.64
chr5	143829491	143830381	891	271	21	40.1	5.75	46.56
chr5	144126782	144127617	836	279	20	39.1	5.34	46.36
chr5	145385889	145387247	1359	772	26	31.59	6.16	50.03
chr5	145468413	145469210	798	539	19	37	6.16	46.97
chr5	145707293	145708227	935	451	21	33.25	5.33	48.93
chr5	146747018	146748081	1064	416	22	30.5	4.52	51.32
chr5	146975538	146976485	948	699	21	31.37	4.84	50.24
chr5	147047181	147048014	834	576	19	33.78	4.43	48.73
chr5	147061458	147062324	867	654	19	30.2	3.89	51.76
chr5	147076619	147078681	2063	707	43	36.99	4.79	46.93
chr5	147094347	147095699	1353	714	29	30.92	4.11	50.58
chr5	147145404	147147829	2426	1087	59	43.54	3.62	48.06
chr5	147459154	147459794	641	268	17	35.79	5.84	47.13
chr5	147627425	147628285	861	263	20	37.51	5.75	46.02
chr5	147792114	147793454	1341	671	26	32.37	6.98	49.77
chr5	147835542	147836423	882	595	19	31.98	6.16	49.78
chr5	148023645	148024406	762	505	21	49.32	5.34	51.08
chr5	148746475	148747348	874	462	20	36.71	5.34	46.91

chr5	148821860	148822802	943	581	21	36.92	4.11	46.83
chr5	148919697	148920571	875	286	20	31.01	4.42	50.49
chr5	149500302	149501806	1505	725	34	30.14	3.74	51.63
chr5	149791311	149793180	1870	850	65	114.14	6.23	26.32
chr5	150268282	150269047	766	271	17	30.13	4.52	51.65
chr5	150348447	150349558	1112	634	25	35.24	5.33	47.29
chr5	150359399	150360723	1325	562	28	40.57	4.93	46.84
chr5	150437176	150439403	2228	478	57	43.84	4.58	47.89
chr5	150814918	150815752	835	470	19	34.69	6.16	47.81
chr5	151249208	151250233	1026	377	24	40.61	5.34	46.71
chr5	151356570	151358190	1621	261	35	48.8	4.93	50.74
chr5	151401511	151403075	1565	1327	34	41.76	4.19	47.06
chr5	151652981	151654544	1564	1026	33	43.98	5.34	47.95
chr5	152383620	152384652	1033	340	21	32.03	5.34	49.77
chr5	152674127	152674963	837	263	18	30.33	5.34	51.59
chr5	153403421	153405015	1595	485	39	66.99	6.16	55.78
chr5	154366347	154367517	1171	507	24	32.88	6.98	49.32
chr5	154564790	154566111	1322	620	27	36.89	6.16	46.7
chr5	154617926	154618549	624	266	18	44.9	6.98	48.9
chr5	154753255	154754183	929	255	22	33.59	5.33	48.7
chr5	156025089	156026542	1454	1003	36	62.57	6.16	55.75
chr5	156195895	156196886	992	235	25	43.7	5.84	48.02
chr5	156261892	156262872	981	567	20	30.76	5.34	50.95
chr5	156957359	156958350	992	523	20	30.21	5.75	51.73
chr5	157339742	157341106	1365	735	28	38.57	5.75	46.12
chr5	158147035	158148182	1148	534	27	30.81	5.17	51
chr5	158466431	158468363	1933	590	40	42.51	5.52	47.33
chr5	158856689	158857824	1136	594	25	38.57	6.57	46.2
chr5	159487991	159488833	843	610	23	48.13	5.75	49.46
chr5	159561278	159561831	554	277	16	42.93	6.57	47.38
chr5	159766544	159767332	789	530	18	33.09	4.93	49.16
chr5	160641376	160642247	872	593	21	37.02	5.71	46.96
chr5	161104213	161105223	1011	369	21	33.16	6.16	49.1
chr5	161164899	161165812	914	258	20	33.36	4.83	48.69
chr5	161264770	161265630	861	233	19	33.16	4.52	49.11
chr5	161836908	161837775	868	588	19	32.76	4.93	49.36
chr5	161987344	161988287	944	276	22	36.86	6.16	46.73
chr5	162265793	162266632	840	310	19	34.39	4.52	47.73
chr5	162701291	162702438	1148	634	24	34	4.93	48.56
chr5	162738034	162738799	766	288	18	34.51	4.93	47.68
chr5	162804615	162805466	852	529	20	37.67	5.3	46.37
chr5	162938226	162938895	670	410	19	40.42	5.52	46.97
chr5	163834538	163835677	1140	517	23	30.63	4.93	51.19
chr5	164039350	164040491	1142	586	26	42.36	6.98	47.03
chr5	164346283	164347204	922	638	20	33.9	4.52	48.66
chr5	164673498	164674226	729	400	19	41.75	5.75	47.11
chr5	166434791	166436051	1261	485	29	48.16	6.98	49.56
chr5	166646548	166647450	903	667	19	30.84	5.34	50.85
chr5	168158678	168159877	1200	632	27	38.19	5.33	46.34
chr5	170227986	170228862	877	475	19	32.26	4.52	49.99
chr5	170399667	170400634	968	406	20	31.43	4.52	50.12
chr5	170426462	170427413	952	361	20	32.27	4.93	50.07

chr5	170621090	170622235	1146	644	23	30.35	4.11	51.6
chr5	171033490	171034420	931	641	20	33.4	4.52	48.71
chr5	171184328	171186104	1777	1231	37	34.01	5.14	48.53
chr5	171197935	171198766	832	484	18	30.6	5.34	51.25
chr5	171415909	171416785	877	234	19	32.26	4.11	49.99
chr5	171512068	171512788	721	291	18	33.74	3.42	48.67
chr5	171524963	171525864	902	507	21	39.4	6.57	46.96
chr5	171682898	171684028	1131	762	25	32.97	5.21	49.3
chr5	172517017	172519252	2236	1229	50	41.31	4.05	46.94
chr5	172532003	172533288	1286	778	26	34.87	5.34	47.61
chr5	172560625	172562242	1618	282	30	32.59	3.04	49.42
chr5	173165724	173166675	952	457	20	32.27	5.34	50.07
chr5	173312498	173314021	1524	1121	35	31.61	4.63	49.94
chr5	173331086	173331873	788	354	21	42.12	4.89	46.86
chr5	173377472	173378382	911	634	20	34.53	6.16	47.68
chr5	173472189	173473380	1192	767	30	56.97	6.98	52.85
chr5	173540315	173541405	1091	606	25	41.08	4.93	46.43
chr5	173875952	173877540	1589	244	33	42.77	5.34	47.54
chr5	173902519	173903697	1179	505	28	48.76	5.34	50.63
chr5	175577588	175578302	715	428	19	42.8	5.34	47.43
chr5	176351857	176352996	1140	660	25	38.35	4.93	46.33
chr5	176465876	176466709	834	610	19	34.75	4.93	47.59
chr5	176549455	176550317	863	401	20	36.98	5.3	46.95
chr5	176636920	176638186	1267	793	29	30.23	4.44	51.73
chr5	176670228	176671046	819	373	21	30.18	4.4	51.66
chr5	176713863	176714900	1038	534	27	34.67	4.98	47.76
chr5	177878255	177879149	895	242	19	31.27	4.11	50.46
chr5	178431700	178432956	1257	503	27	40.15	6.57	46.72
chr5	178439951	178441095	1145	469	24	34.15	7.8	48
chr5	179049532	179052070	2539	760	71	59.24	4.38	53.9
chr5	179124487	179126725	2239	789	44	45.24	6.85	49.22
chr5	179237639	179238543	905	349	19	30.73	5.75	50.98
chr5	179380963	179381814	852	357	23	47.47	5.75	48.55
chr5	179417658	179419058	1401	1027	30	41.41	4.33	46.98
chr5	179438235	179439047	813	230	20	38.3	5.51	46.42
chr5	180157367	180158338	972	271	20	31.22	5.75	50.59
chr5	180570693	180571518	826	428	21	44.48	7.39	48.48
chr6	354180	355195	1016	656	21	32.51	6.52	49.39
chr6	395592	396216	625	341	19	50.29	6.16	51.58
chr6	468316	469843	1528	789	50	123	16.02	22.22
chr6	478419	479360	942	412	23	38.2	5.45	46.4
chr6	584819	585841	1023	747	23	36.57	5.75	46.9
chr6	1918952	1919706	755	288	17	30.77	4.52	50.95
chr6	2513205	2514045	841	510	19	34.33	4.52	47.74
chr6	2703419	2704555	1137	402	27	31.64	5.52	49.88
chr6	2771292	2772552	1261	482	29	31.68	3.88	49.83
chr6	2833970	2834954	985	391	22	32.29	5.12	50.09
chr6	2924639	2925513	875	629	19	32.37	4.93	49.85
chr6	3334272	3335083	812	539	19	36.1	4.93	46.97
chr6	3748244	3749611	1368	670	30	33.48	6.16	48.64
chr6	3956325	3957480	1156	667	25	37.5	5.75	45.98
chr6	4009781	4010952	1172	754	27	39.73	4.95	46.56

chr6	5547794	5548505	712	357	17	33.42	5.34	48.71
chr6	5739299	5740658	1360	265	30	46.7	4.93	47.44
chr6	6484241	6485226	986	418	20	30.51	5.75	51.28
chr6	6531483	6532090	608	334	15	31	4.93	50.54
chr6	6964794	6965709	916	631	21	38.54	4.52	46.22
chr6	7398496	7399170	675	395	17	30.42	4.74	51.33
chr6	7516726	7517908	1183	577	33	37.66	4.28	46.36
chr6	8315813	8316907	1095	462	24	36.73	5.75	47.01
chr6	8476757	8477656	900	415	21	33.53	4.42	48.68
chr6	8514106	8515582	1477	632	35	34.47	4.05	47.76
chr6	8529007	8530074	1068	368	25	37.67	6.09	46.36
chr6	8757134	8758041	908	244	19	30.57	4.52	51.17
chr6	8821019	8821981	963	622	20	31.69	5.75	49.8
chr6	8981509	8982792	1284	550	29	46.83	6.57	47.25
chr6	9476846	9477953	1108	511	25	40.11	7.39	46.61
chr6	10053632	10054463	832	290	18	30.6	5.34	51.25
chr6	10232726	10233523	798	512	20	41.66	4.93	47.21
chr6	10473059	10474262	1204	527	24	31.34	5.75	50.18
chr6	10479903	10480841	939	659	21	33.02	4.57	49.13
chr6	10618791	10619705	915	332	19	30.21	4.11	51.69
chr6	10627632	10628547	916	418	21	34.34	5.33	47.85
chr6	10644992	10646260	1269	672	26	35.69	5.75	47.21
chr6	10800840	10802347	1508	703	39	64.95	7.99	54.4
chr6	10817121	10818467	1347	650	29	31.2	4.45	50.54
chr6	10868744	10869769	1026	358	25	45.01	6.16	49.03
chr6	12171914	12172742	829	373	18	30.43	5.3	51.28
chr6	12317185	12318171	987	730	25	47.55	6.98	48.9
chr6	12365554	12366654	1101	488	25	40.51	4.93	46.98
chr6	12477133	12478536	1404	283	30	44.34	4.93	48.4
chr6	12588814	12590676	1863	592	35	37.79	4.93	46.68
chr6	13167269	13168175	907	616	20	34.75	4.11	47.62
chr6	13650056	13651027	972	271	25	34.65	6.92	47.66
chr6	13814203	13816327	2125	1484	59	30.28	4.49	51.66
chr6	13915581	13916578	998	621	22	33.85	6.16	48.73
chr6	14264560	14265794	1235	623	28	45.44	5.75	49.63
chr6	15118098	15118843	746	249	17	31.31	4.93	50.36
chr6	15584919	15585751	833	326	19	34.81	5.75	47.51
chr6	15720191	15721180	990	588	21	32.03	5.12	49.77
chr6	15831246	15832362	1117	620	24	35.57	5.34	47.21
chr6	16547674	16548580	907	626	20	34.75	4.93	47.62
chr6	16831869	16832485	617	337	15	30.4	5.75	51.47
chr6	17980241	17981062	822	544	20	40.02	6.16	46.54
chr6	18453992	18455180	1189	642	30	57.17	6.16	53.28
chr6	18680231	18681097	867	253	20	37.13	4.52	46.94
chr6	18820470	18821335	866	578	19	32.88	5.34	49.29
chr6	19839901	19840792	892	481	19	31.43	4.93	50
chr6	20029198	20030386	1189	376	25	35.81	5.34	47.14
chr6	20390044	20390972	929	351	23	37.71	7.99	46.52
chr6	20579873	20580674	802	387	24	45.24	5.88	49.25
chr6	20805250	20806747	1498	942	30	32.29	3.68	50.08
chr6	21014087	21014993	907	283	22	36.72	6.69	47.02
chr6	21016755	21017902	1148	544	24	33.58	5.71	48.67

chr6	21144381	21145122	742	270	18	32.38	4.19	49.75
chr6	21526385	21526988	604	280	15	31.27	4.93	50.46
chr6	23945420	23946255	836	487	18	30.38	4.93	51.65
chr6	23972924	23974869	1946	1361	36	37.76	5.34	46.62
chr6	24252149	24252882	734	490	17	32.04	5.34	49.74
chr6	24946603	24947882	1280	801	29	40.8	6.02	46.35
chr6	24998535	24999528	994	618	22	31.82	5.12	49.82
chr6	25198574	25199662	1089	449	23	33.09	4.93	49.15
chr6	25685680	25686841	1162	504	25	37.19	6.57	46.86
chr6	25878954	25879707	754	274	18	31.63	4.57	49.89
chr6	26049198	26050859	1662	1046	37	31.27	3.7	50.45
chr6	26060075	26061805	1731	255	40	52.45	5.16	50.54
chr6	26205700	26206863	1164	708	29	40.85	3.77	46.33
chr6	26292922	26293718	797	261	18	30.1	4.28	51.55
chr6	26760794	26761734	941	272	23	41.42	5.34	47.09
chr6	26799238	26799856	619	287	15	30.27	5.75	51.69
chr6	26922887	26924702	1816	285	41	52.67	4.84	50.56
chr6	27078655	27079246	592	230	15	32.09	5.75	49.72
chr6	27804918	27806366	1449	606	42	31.76	3.61	49.86
chr6	28137306	28138109	804	290	20	41.24	4.93	46.72
chr6	28154029	28155120	1092	600	23	32.94	5.34	49.38
chr6	28332986	28334088	1103	540	24	36.31	4.52	46.95
chr6	28359048	28360130	1083	640	24	32.98	5.71	49.25
chr6	28569704	28570611	908	657	19	30.57	4.11	51.17
chr6	28671567	28672388	822	545	21	34.5	6.16	47.66
chr6	28726215	28727084	870	287	19	31.71	4.43	49.75
chr6	28889795	28891850	2056	1394	41	32.71	4.69	49.38
chr6	28919592	28920803	1212	623	28	42.98	6.62	47.39
chr6	29015003	29016554	1552	1173	36	48.97	5.27	50.49
chr6	29084191	29085105	915	640	20	34.3	4.93	47.81
chr6	29118845	29119885	1041	507	28	58.09	6.98	53.61
chr6	29309333	29310350	1018	284	21	32.8	5.34	49.43
chr6	29856660	29858349	1690	843	47	36.5	3.18	47.04
chr6	29989850	29991349	1500	562	32	38.93	5.16	46.27
chr6	30243506	30245162	1657	623	34	40.04	4.52	46.58
chr6	30671752	30673913	2162	677	76	35.29	3.7	47.41
chr6	30685124	30686740	1617	589	43	34.18	3.89	48.01
chr6	31055454	31056371	918	485	21	33.64	4.52	48.79
chr6	31235524	31240345	4822	693	151	32.57	3.08	49.31
chr6	31320815	31326114	5300	999	184	73.07	4.24	56.82
chr6	31399909	31400803	895	432	20	35.45	5.75	47.41
chr6	31428018	31429119	1102	823	27	45.38	5.06	49.56
chr6	32596215	32597595	1381	559	35	30.76	4.7	50.95
chr6	33167100	33169234	2135	1704	52	60.2	5.66	55.2
chr6	33175446	33177471	2026	473	47	39.04	5.73	46.26
chr6	33286685	33289533	2849	704	72	32.39	4.34	49.75
chr6	33311911	33312632	722	462	17	32.78	5.34	49.39
chr6	34494334	34495662	1329	1069	31	32.34	4.36	49.97
chr6	34928690	34929708	1019	255	21	32.74	4.93	49.36
chr6	34932431	34933042	612	352	16	35.54	5.34	47.2
chr6	34964152	34965360	1209	560	24	31.11	4.52	50.71
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chr6	36679247	36680171	925	340	22	37.99	4.52	46.41
chr6	36953117	36954298	1182	654	29	51.57	6.04	51.65
chr6	37239832	37240764	933	508	21	33.96	5.77	48.61
chr6	37937017	37937829	813	523	19	36.04	4.11	46.87
chr6	39081360	39083591	2232	1453	43	47.5	6.84	48.64
chr6	39805570	39806271	702	389	17	32.93	6.01	49.36
chr6	40568601	40569595	995	536	22	34.01	4.11	48.54
chr6	41053725	41054491	767	277	18	34.45	4.93	47.77
chr6	42244171	42244798	628	356	16	31.53	5.77	49.93
chr6	43484206	43485949	1744	765	46	31.19	3.91	50.52
chr6	44007242	44008097	856	256	23	47.18	8.22	47.74
chr6	44374469	44375987	1519	883	34	36.13	3.42	46.97
chr6	44418183	44419581	1399	714	31	35.3	5.82	47.42
chr6	44898272	44899738	1467	491	30	41.16	3.7	46.47
chr6	45075770	45076742	973	711	20	31.17	4.11	50.55
chr6	45212323	45213126	804	555	18	32.2	4.52	49.96
chr6	45373572	45374501	930	330	20	33.46	5.34	48.63
chr6	45380154	45380932	779	284	18	30.11	4.57	51.64
chr6	45383635	45384683	1049	765	22	31.23	4.52	50.5
chr6	46117136	46118351	1216	576	29	50.88	6.16	51.55
chr6	46313010	46314087	1078	276	25	41.84	6.16	47.01
chr6	46462698	46463655	958	332	20	31.95	4.93	49.8
chr6	46668592	46669456	865	513	19	32.93	4.52	49.39
chr6	47518055	47518981	927	391	24	41.47	6.77	47.06
chr6	47684164	47684984	821	249	18	31.22	4.93	50.51
chr6	48331583	48333154	1572	320	32	43.59	4.11	47.64
chr6	48476832	48477812	981	742	20	30.76	4.11	50.95
chr6	49031634	49032511	878	588	20	36.46	4.93	47.12
chr6	49157813	49158848	1036	569	22	31.88	5.34	49.76
chr6	49446126	49447594	1469	887	30	31.97	4.67	49.83
chr6	50068949	50069935	987	432	21	34.44	4.52	47.76
chr6	50911005	50911745	741	282	19	40.88	5.75	46.38
chr6	51899195	51900108	914	555	19	30.26	4.11	51.67
chr6	52262905	52263977	1073	557	23	33.9	5.34	48.62
chr6	52718609	52719533	925	267	22	37.99	6.16	46.41
chr6	52859743	52861281	1539	805	95	85.58	9.3	52.63
chr6	53299237	53300134	898	509	20	34.89	4.89	47.68
chr6	53388170	53389484	1315	774	26	33.53	6.57	48.68
chr6	53620522	53621500	979	249	21	34.88	4.11	47.64
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chr6	54840537	54841528	992	603	25	35.77	4.79	47.1
chr6	54971629	54972659	1031	756	22	32.13	5.34	49.78
chr6	55674341	55675327	987	369	23	38.62	5.75	46.1
chr6	55723234	55724165	932	232	20	33.35	5.34	48.67
chr6	55724349	55725384	1036	692	22	31.88	5.34	49.76
chr6	55961128	55962036	909	503	19	30.52	5.34	51.32
chr6	56436877	56437739	863	597	21	40.15	4.38	46.69
chr6	56456713	56457850	1138	773	25	33.24	4.89	49
chr6	56612763	56613689	927	428	20	33.62	5.34	48.71
chr6	56966138	56967626	1489	1020	38	48.54	4.28	49.69



chr6	57018532	57019702	1171	505	27	36.97	5.1	46.99
chr6	57033927	57035730	1804	1338	41	30.37	3.71	51.62
chr6	57129675	57130460	786	417	18	31.81	4.38	49.84
chr6	57205272	57207415	2144	1422	54	30.52	3.92	51.3
chr6	57362723	57365585	2863	510	71	32.44	3.15	49.55
chr6	57563546	57567051	3506	2461	102	47.32	3.4	48.27
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chr6	57846525	57847473	949	288	20	32.43	5.34	49.57
chr6	57961146	57962097	952	677	20	32.27	4.93	50.07
chr6	62326020	62326964	945	656	22	36.81	5.34	46.82
chr6	62528970	62530884	1915	498	48	67.92	6.56	54.68
chr6	63183705	63184755	1051	492	21	31.13	5.34	50.63
chr6	63981963	63983670	1708	1046	38	56.11	6.98	53.69
chr6	64084506	64085515	1010	494	21	33.21	5.34	49.14
chr6	64176689	64177527	839	588	19	34.45	4.52	47.73
chr6	64511457	64512679	1223	583	27	41.97	5.34	47.11
chr6	64767345	64768183	839	365	20	38.9	5.34	46.29
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chr6	65134403	65135354	952	478	21	32.3	6.47	50.08
chr6	65150395	65151291	897	476	21	39.3	5.71	46.52
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chr6	66038177	66038865	689	403	16	30.36	6.16	51.66
chr6	66083031	66083934	904	576	19	30.79	5.34	50.91
chr6	66213018	66214120	1103	731	24	36.31	4.93	46.95
chr6	66271130	66271721	592	363	15	32.09	4.93	49.72
chr6	66466093	66466864	772	494	18	30.53	4.19	51.24
chr6	66619473	66620336	864	284	19	32.99	4.93	49.23
chr6	66884296	66885207	912	620	20	34.47	4.93	47.74
chr6	67096735	67097779	1045	578	25	41.84	5.18	47.1
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chr6	67602175	67603309	1135	557	23	30.86	5.75	50.88
chr6	67640769	67642119	1351	723	29	43.16	5.34	47.39
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chr6	67779967	67781283	1317	486	28	36.63	4.62	47
chr6	67831145	67831794	650	303	19	42.04	5.89	47.02
chr6	67899668	67900565	898	405	21	39.65	5.34	46.42
chr6	68033205	68034879	1675	751	41	70.03	4.89	52.94
chr6	68179522	68180393	872	277	21	41.33	4.93	46.82
chr6	68304912	68305823	912	200	19	30.36	5.75	51.57
chr6	68305906	68307371	1466	1197	30	41.21	4.93	46.74
chr6	68446548	68448129	1582	459	36	49.72	5.42	51.72
chr6	68659435	68660296	862	570	19	31.03	5.12	50.49
chr6	69257278	69258274	997	322	22	33.9	5.75	48.58
chr6	69582441	69583617	1177	554	26	40.41	6.16	46.79
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chr6	70760598	70761924	1327	1061	30	42.08	4.14	46.97
chr6	71133881	71135487	1607	1317	36	44.26	5.89	48.19
chr6	71415613	71417049	1437	860	32	30.26	4.36	51.69
chr6	71566397	71567678	1282	282	29	44.86	4.39	48.91

chr6	71711223	71712083	861	586	19	33.16	4.93	49.11
chr6	71716633	71717323	691	277	16	30.24	5.34	51.75
chr6	71774385	71775072	688	289	19	44.9	6.98	48.87
chr6	71854737	71855583	847	591	19	30.24	4.19	51.74
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chr6	72201917	72202672	756	472	20	44.7	6.16	48.8
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chr6	72925964	72926537	574	287	16	35.22	6.23	47.18
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chr6	73009730	73011712	1983	649	38	38.08	5.58	46.43
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chr6	74531715	74532498	784	503	21	35.97	5.03	47.08
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chr6	76074358	76075205	848	287	22	42.94	6.98	47.42
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chr6	76408531	76409901	1371	802	29	42.12	6.57	46.92
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chr6	77852078	77853020	943	488	20	32.75	5.34	49.37
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chr6	78681513	78682395	883	518	19	31.92	4.93	49.72
chr6	78893135	78893980	846	252	21	43.08	6.98	47.19
chr6	78905444	78906198	755	289	19	35.92	4.95	47.09
chr6	78906279	78907367	1089	612	24	32.67	5.33	49.44
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chr6	80942367	80943156	790	541	19	33.64	4.95	48.8
chr6	81011430	81012749	1320	712	28	40.82	6.57	46.34
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chr6	81322704	81323614	911	455	20	34.53	4.93	47.68

chr6	81753942	81755081	1140	480	25	33.78	6.09	48.7
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chr6	83403008	83404070	1063	468	22	30.55	6.57	51.18
chr6	83785325	83787149	1825	1297	39	38.87	5.53	46.22
chr6	83954755	83956396	1642	1368	34	37.05	4.12	47.05
chr6	84465615	84466812	1198	486	29	52.01	4.93	50.97
chr6	84509493	84510565	1073	440	28	50.06	5.71	51.66
chr6	84555854	84557393	1540	880	34	40.49	4.79	46.93
chr6	84601471	84602296	826	586	18	30.94	4.11	50.56
chr6	84612924	84614266	1343	690	31	42.64	5.1	47.39
chr6	84787235	84788434	1200	546	24	31.52	5.34	49.89
chr6	84867213	84869044	1832	725	39	53.55	4.93	52.03
chr6	84919199	84920257	1059	572	23	34.22	4.89	47.92
chr6	84934628	84935986	1359	539	31	39.48	5.3	47.06
chr6	84961458	84963146	1689	1086	35	43.88	4.83	47.88
chr6	85347508	85348517	1010	443	22	33.21	6.98	49.14
chr6	85655851	85656876	1026	285	26	43.65	6.02	47.97
chr6	86416466	86418102	1637	519	39	43.98	4.62	47.89
chr6	87035274	87036142	869	274	19	32.71	4.52	49.41
chr6	87364987	87366372	1386	827	28	31.32	4.84	50.33
chr6	87534064	87535054	991	537	20	30.26	4.93	51.67
chr6	87614146	87615259	1114	528	26	32.59	4.79	49.3
chr6	87941929	87943750	1822	1414	43	57.19	4.89	53.16
chr6	87971765	87974173	2409	662	54	52.57	4.11	50.32
chr6	87996531	87997465	935	445	20	33.18	5.34	49.11
chr6	88034008	88034999	992	526	25	42.26	5.33	47.24
chr6	88600120	88601119	1000	421	21	31.5	5.51	49.88
chr6	89091024	89091775	752	464	17	30.95	4.52	50.53
chr6	89254986	89255855	870	587	19	32.65	4.93	49.31
chr6	89312696	89313807	1112	613	23	31.96	5.34	49.77
chr6	89644517	89645597	1081	655	23	30.59	5.84	51.24
chr6	90105109	90105976	868	622	21	41.59	4.52	47.18
chr6	90317433	90318463	1031	437	22	32.13	7.8	49.78
chr6	90729659	90730612	954	592	20	31.19	4.43	50.51
chr6	90852132	90853249	1118	458	23	31.67	4.93	49.85
chr6	91790746	91791445	700	268	17	34.2	5.75	47.93
chr6	91900619	91901967	1349	603	30	47.32	5.34	48.18
chr6	91972899	91973757	859	453	19	33.28	6.16	48.91
chr6	92089297	92090736	1440	770	32	50.48	5.34	51.82
chr6	92211427	92212626	1200	534	24	31.52	5.34	49.89
chr6	92676008	92676893	886	408	20	35.98	5.75	47.04
chr6	93403442	93404675	1234	616	26	36.95	6.12	46.93
chr6	93856195	93856843	649	358	17	34.17	5.33	48.04
chr6	94522539	94523535	997	620	21	33.9	4.93	48.58
chr6	94682129	94683032	904	655	19	30.79	4.93	50.91
chr6	94705303	94706131	829	547	18	30.77	4.93	50.95
chr6	94772821	94775029	2209	1037	50	34.3	3.42	47.83
chr6	95280498	95281382	885	619	24	45.04	6.09	49.13
chr6	95340280	95341307	1028	512	21	32.28	4.52	50.03
chr6	95370563	95371545	983	341	22	34.66	4.52	47.66

chr6	95483290	95484463	1174	585	24	32.74	4.93	49.37
chr6	95606139	95607411	1273	593	30	51.18	6.12	51.66
chr6	96176926	96178202	1277	746	31	55.94	5.34	53.41
chr6	96306174	96307318	1145	538	25	38.09	5.34	46.46
chr6	96491895	96493179	1285	642	27	38.71	7.8	46.26
chr6	96751748	96752596	849	258	19	33.86	4.93	48.66
chr6	96837706	96838747	1042	246	23	35.53	4.52	47.2
chr6	96933617	96934289	673	281	16	31.37	4.52	50.2
chr6	97001236	97002387	1152	543	26	41.8	6.16	47.05
chr6	97035768	97036567	800	521	18	32.44	5.75	49.55
chr6	97452380	97453255	876	611	20	36.58	4.93	46.91
chr6	97470851	97471854	1004	395	22	33.53	6.98	48.64
chr6	97531266	97532164	899	260	22	35.35	4.57	47.46
chr6	97598933	97599728	796	574	19	37.12	5.34	46.93
chr6	97882654	97884478	1825	614	34	32.99	5.51	49.2
chr6	97940841	97941714	874	589	22	41.2	4.93	46.62
chr6	98301824	98303003	1180	468	29	53.17	5.34	51.85
chr6	98364330	98365167	838	251	18	30.27	3.7	51.68
chr6	98599957	98601153	1197	582	29	52.07	5.75	51.2
chr6	98959947	98960930	984	475	22	34.6	5.34	47.68
chr6	99051432	99052331	900	617	21	39.53	6.16	46.86
chr6	100035681	100036432	752	271	20	45.01	7.8	49.09
chr6	100143517	100144272	756	478	17	30.71	4.93	51.03
chr6	100273927	100274964	1038	580	21	31.78	6.16	49.85
chr6	100304350	100305493	1144	491	23	30.45	5.75	51.27
chr6	100324702	100325713	1012	667	21	33.11	4.52	49.16
chr6	100389488	100390254	767	285	17	30.07	4.52	51.5
chr6	100408764	100410173	1410	747	33	52.19	4.93	51.36
chr6	100543295	100544228	934	358	26	56.23	6.57	53.72
chr6	100643875	100644468	594	268	15	31.95	5.75	49.78
chr6	100979098	100980061	964	405	28	55.61	8.1	54.07
chr6	101163315	101164589	1275	1010	30	44.19	4.09	48.02
chr6	101254545	101256101	1557	289	34	38.86	3.64	46.27
chr6	101504388	101505938	1551	285	34	42.45	4.19	47.37
chr6	101783884	101784895	1012	341	22	33.11	4.52	49.16
chr6	101913613	101914721	1109	589	24	35.99	6.57	47.09
chr6	102092594	102093511	918	224	20	30.26	4.19	51.67
chr6	102195724	102196736	1013	731	24	41.39	7.39	46.95
chr6	102262315	102263953	1639	525	32	34.94	4.19	47.71
chr6	102329881	102330853	973	241	20	31.17	4.93	50.55
chr6	102736722	102737634	913	261	21	34.52	4.95	47.72
chr6	102780650	102781579	930	642	20	33.46	6.16	48.63
chr6	102869372	102870849	1478	831	33	48.39	7.39	49.2
chr6	102958696	102959739	1044	392	22	31.48	5.34	49.97
chr6	103031254	103032296	1043	286	27	47.64	5.71	49.21
chr6	103280190	103281081	892	282	20	35.63	5.75	47.33
chr6	103608626	103609308	683	329	16	30.73	4.52	50.98
chr6	103841070	103841902	833	285	18	30.55	4.93	51.23
chr6	104889486	104890471	986	712	21	34.5	6.16	47.68
chr6	104914366	104915009	644	254	18	43.24	5.75	47.7
chr6	105080085	105080955	871	433	20	36.89	5.75	46.68
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chr6	105695214	105696427	1214	520	26	38.44	5.75	46.38
chr6	106042025	106042973	949	660	23	30.71	4.79	51.04
chr6	106046631	106047567	937	655	20	33.07	4.52	49.17
chr6	106360606	106361460	855	367	19	33.51	5.34	48.65
chr6	106476564	106477574	1011	510	21	31.54	6.37	49.95
chr6	106532722	106533593	872	598	21	30.36	4.7	51.61
chr6	106568627	106569996	1370	1087	33	54.56	5.75	54.08
chr6	106828992	106830257	1266	1002	33	54.77	6.09	54.18
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chr6	107075955	107077415	1461	810	37	35.03	4.85	47.47
chr6	107147471	107148586	1116	331	31	32.84	3.42	49.37
chr6	107397140	107398097	958	482	21	31.97	4.95	49.85
chr6	107592465	107594119	1655	465	35	33.15	3.42	49.16
chr6	107892678	107893949	1272	801	30	45.17	6.4	49.04
chr6	107907898	107909084	1187	569	27	32.29	5.82	50.12
chr6	108164575	108165675	1101	329	25	37.88	7.09	46.59
chr6	108466604	108467417	814	545	18	31.62	4.93	49.94
chr6	108547647	108549049	1403	457	31	30.6	3.52	51.26
chr6	108552058	108553980	1923	482	45	36.08	5.02	46.95
chr6	109155346	109157164	1819	798	39	47.26	4.19	48.07
chr6	109505390	109506100	711	411	17	33.48	4.52	48.67
chr6	109569460	109570072	613	275	15	30.66	4.52	51.05
chr6	109883426	109884254	829	386	19	35.05	4.93	47.49
chr6	110012223	110013118	896	624	21	36.76	5.06	46.93
chr6	110435909	110437101	1193	603	24	31.85	5.75	49.77
chr6	110612264	110613728	1465	716	34	53.22	6.16	51.6
chr6	110849172	110850338	1167	578	24	33.08	6.98	49.14
chr6	111468719	111469494	776	514	19	38.44	4.52	46.41
chr6	111579908	111581145	1238	666	31	31.83	5.76	49.82
chr6	111785097	111786174	1078	608	29	33.23	4.53	49.06
chr6	113092046	113092994	949	542	21	36.57	4.93	46.89
chr6	113479474	113480283	810	379	19	36.23	4.93	46.97
chr6	113785917	113786847	931	285	21	37.63	6.98	45.83
chr6	114107986	114108809	824	453	18	31.05	4.93	50.62
chr6	114639565	114641522	1958	521	42	41.49	5.14	47.08
chr6	114940920	114941981	1062	329	21	30.6	5.75	51.21
chr6	115210111	115211167	1057	555	21	30.84	4.93	50.83
chr6	115581180	115582261	1082	565	24	37.43	4.93	46.43
chr6	115701243	115702896	1654	1047	30	32.95	3.7	49.3
chr6	116584105	116585307	1203	618	24	31.39	5.75	50.21
chr6	116648707	116649771	1065	815	21	30.45	4.11	51.29
chr6	116684291	116685255	965	569	23	31.44	6	50.01
chr6	116814138	116815066	929	252	21	36.04	4.38	46.88
chr6	117134211	117135235	1025	761	28	45.76	4.79	49.96
chr6	117437263	117438013	751	190	18	31.81	4.19	49.85
chr6	117640859	117648332	7474	1566	214	80.91	4.23	54
chr6	117656587	117658833	2247	653	50	69.48	6.08	54.03
chr6	117674043	117674897	855	267	20	32.18	4.05	49.95
chr6	117680312	117681414	1103	725	27	30.98	4.98	50.44
chr6	117686272	117687774	1503	1152	35	40.29	4.45	46.86

chr6	117784063	117784798	736	448	17	31.91	4.52	49.82
chr6	117814340	117815363	1024	436	21	32.49	6.16	49.45
chr6	117899060	117900451	1392	760	31	39.25	5.05	46.37
chr6	117961583	117962597	1015	522	26	50.32	7.39	51.78
chr6	118151321	118152408	1088	721	23	33.14	4.93	49.16
chr6	118337256	118338382	1127	277	25	39.06	5.75	46.31
chr6	118487561	118488319	759	204	18	34.95	4.93	47.68
chr6	118579554	118580506	953	438	27	59.83	6.57	56.45
chr6	118595807	118596622	816	533	19	35.85	4.52	46.94
chr6	118841382	118842940	1559	855	37	58.66	5.64	52.66
chr6	118972176	118974569	2394	1182	50	55.03	4.19	53.54
chr6	119289331	119290781	1451	1018	31	42.64	3.94	47.42
chr6	119748090	119748980	891	473	20	31.75	5.71	49.79
chr6	119751651	119752723	1073	690	23	33.9	4.52	48.62
chr6	119902056	119903714	1659	1164	36	49.1	5.24	50.66
chr6	120084139	120084970	832	189	18	30.6	4.93	51.25
chr6	120256185	120257062	878	517	21	36.65	4.57	47
chr6	120497019	120498079	1061	583	21	30.64	5.34	51.13
chr6	120521038	120521612	575	287	15	32.66	6.16	49.32
chr6	120708178	120709293	1116	651	23	31.77	4.93	49.85
chr6	120823436	120824266	831	286	20	39.42	4.93	47.03
chr6	121006748	121007498	751	262	20	45.08	5.34	48.88
chr6	121022371	121023326	956	256	20	32.05	6.16	49.81
chr6	121035503	121036165	663	378	19	46.95	6.57	47.57
chr6	121083363	121084216	854	529	19	33.57	4.52	48.6
chr6	121263907	121265142	1236	514	30	40.41	7.88	46.84
chr6	121447475	121449203	1729	309	34	34.41	4.57	47.76
chr6	121657459	121658985	1527	1157	34	37.97	4.24	46.36
chr6	121753696	121754406	711	448	19	43.1	5.34	47.29
chr6	121778149	121779133	985	416	21	34.55	4.52	47.78
chr6	121995566	121996346	781	502	20	42.86	4.93	47.25
chr6	122209253	122209801	549	274	15	37.66	6.16	46.06
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chr6	122429808	122430638	831	455	18	30.66	5.75	51.04
chr6	122564103	122565130	1028	530	21	32.28	4.52	50.03
chr6	122813539	122814359	821	350	19	30.68	4.84	51.02
chr6	122958467	122959302	836	572	18	30.38	4.11	51.65
chr6	123044973	123046005	1033	420	23	36.02	6.16	46.99
chr6	123101200	123102371	1172	649	25	36.67	6.16	47
chr6	123535376	123537256	1881	627	35	37.07	4.11	46.95
chr6	123870492	123871158	667	275	17	36.46	5.34	47.13
chr6	124004132	124005258	1127	514	26	43.23	7.39	47.62
chr6	124079630	124080945	1316	726	26	33.49	4.93	48.68
chr6	124087043	124088018	976	436	20	31.01	4.93	50.49
chr6	124426800	124427660	861	578	21	42.06	6.16	46.99
chr6	125326261	125327027	767	489	18	34.45	5.34	47.77
chr6	125358682	125359487	806	218	22	43.42	6.69	47.85
chr6	125551798	125552683	886	616	21	40.42	4.52	46.82
chr6	125790134	125790986	853	286	19	33.62	4.93	48.69
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chr6	125973039	125973916	878	288	20	36.46	5.34	47.12
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chr6	126585440	126586577	1138	259	27	46.89	4.93	47.68
chr6	127201445	127202364	920	553	21	38.29	4.93	46.31
chr6	127707435	127708367	933	609	20	33.29	4.11	48.81
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chr6	128593561	128594501	941	636	20	32.86	4.93	49.3
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chr6	129130847	129131654	808	417	18	31.97	4.93	49.79
chr6	129138732	129140067	1336	662	30	35.05	4.45	47.53
chr6	129655428	129656478	1051	538	25	43.45	6.16	47.99
chr6	130053984	130054869	886	584	19	31.4	5.3	50.2
chr6	130242887	130243843	957	271	21	36.11	5.34	46.95
chr6	130738895	130739834	940	262	27	59.31	5.23	54.43
chr6	130837532	130838277	746	472	17	31.31	4.93	50.36
chr6	131218152	131219993	1842	482	43	65.06	5.75	54.19
chr6	131538521	131539410	890	464	20	35.75	6.16	47.03
chr6	132804146	132805554	1409	685	36	43.55	3.84	47.94
chr6	132978718	132979573	856	337	19	33.08	4.89	49.18
chr6	133135712	133138216	2505	1869	54	34.2	4.47	47.92
chr6	133151294	133152184	891	288	19	31.48	4.52	49.85
chr6	133557423	133558227	805	344	18	32.14	4.52	49.83
chr6	134272748	134274183	1436	797	39	30.57	3.91	51.26
chr6	134464199	134465405	1207	646	24	31.2	6.16	50.55
chr6	134634306	134635555	1250	593	26	36.61	5.34	46.96
chr6	134880007	134880913	907	580	22	39.09	4.52	46.3
chr6	135155264	135155878	615	324	15	30.53	5.34	51.26
chr6	135429360	135430745	1386	773	30	44.74	7.75	48.83
chr6	135598453	135599898	1446	892	37	35.81	5.14	47.17
chr6	135601760	135602653	894	371	19	31.32	4.93	50.32
chr6	135772113	135773448	1336	932	41	42.33	4.16	47.2
chr6	135798252	135799318	1067	483	25	33.88	5.71	48.59
chr6	135852981	135853971	991	727	23	38.39	4.93	46.31
chr6	136063860	136064845	986	355	21	34.5	5.34	47.68
chr6	136171769	136172895	1127	364	23	31.24	4.11	50.47
chr6	136267390	136268841	1452	1188	31	42.59	4.33	47.23
chr6	136385509	136386527	1019	666	27	54.82	8.22	54.4
chr6	136482384	136483358	975	440	22	35.1	5.34	47.34
chr6	136562567	136563251	685	290	16	30.61	5.34	51.15
chr6	136899158	136899789	632	390	17	30.59	5.14	51.24
chr6	137911237	137912171	935	286	21	33.25	5.71	48.93
chr6	138003652	138005540	1889	551	40	54.52	6.57	54.46
chr6	138623903	138624935	1033	289	23	36.02	5.34	46.99
chr6	138678738	138679579	842	582	18	30.05	4.93	51.39
chr6	139107363	139108202	840	286	19	34.39	5.34	47.73
chr6	139983764	139984587	824	287	18	31.05	5.75	50.62
chr6	140002082	140003583	1502	247	31	43.23	4.11	47.65
chr6	140087959	140088874	916	647	19	30.15	4.11	51.66
chr6	140104518	140105804	1287	749	28	42.56	4.93	47.14

chr6	140386951	140387752	802	287	18	32.32	5.34	50.01
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chr6	140724593	140725377	785	363	20	32.83	4.79	49.42
chr6	141136324	141137423	1100	632	23	32.54	5.75	49.35
chr6	141188788	141189502	715	328	17	32.89	5.3	49.33
chr6	141206684	141207306	623	282	19	50.47	6.98	51.95
chr6	141295675	141296602	928	272	22	33.65	4.57	48.68
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chr6	142086997	142088653	1657	1094	35	33.06	3.77	49.18
chr6	142222041	142223562	1522	277	35	40.88	5.24	46.4
chr6	142388753	142389497	745	333	17	31.37	4.93	50.22
chr6	142606263	142607237	975	423	20	31.07	4.93	50.75
chr6	142638087	142639051	965	644	22	32.17	5	49.94
chr6	142663840	142665419	1580	1107	32	33.74	3.97	48.65
chr6	142698979	142699979	1001	621	21	33.69	5.34	48.59
chr6	143221764	143222530	767	515	18	34.45	5.34	47.77
chr6	143312890	143314463	1574	1240	37	47.61	5.39	48.94
chr6	143452509	143453782	1274	612	26	30.9	4.95	50.69
chr6	143541077	143542379	1303	595	25	30.51	5.75	51.29
chr6	143783852	143785149	1298	620	28	36.85	6.47	46.78
chr6	143908600	143909533	934	436	21	37.45	6.57	46.33
chr6	143927191	143928175	985	578	21	34.55	4.93	47.78
chr6	144537633	144538872	1240	513	29	35.88	5.76	47.02
chr6	144585468	144587449	1982	1458	39	50.02	6.16	51.78
chr6	144592267	144593027	761	471	19	39.47	4.52	47.04
chr6	145076923	145077834	912	324	19	30.36	6.16	51.57
chr6	145225351	145227014	1664	468	36	35.85	4.79	47
chr6	145395274	145396191	918	272	20	34.13	4.93	48.07
chr6	145534526	145536016	1491	909	33	37.82	3.97	46.65
chr6	145790746	145791805	1060	326	21	30.69	4.11	51.01
chr6	145981721	145982410	690	289	17	34.87	5.34	47.63
chr6	146035133	146036669	1537	899	31	41.53	5.34	47.13
chr6	146277413	146279001	1589	1131	35	33.25	4.28	48.95
chr6	146343464	146344490	1027	716	21	32.33	5.34	49.98
chr6	146928981	146929952	972	355	20	31.22	3.7	50.59
chr6	147121880	147123292	1413	1139	32	52.02	4.93	51.04
chr6	147562968	147563865	898	432	19	31.11	4.52	50.64
chr6	147711704	147712626	923	638	20	30.54	5	51.17
chr6	148071649	148072965	1317	712	28	40.98	4.11	46.21
chr6	148363030	148363931	902	625	20	35.04	4.93	47.43
chr6	149182102	149182841	740	455	17	31.67	5.34	49.82
chr6	149297773	149298843	1071	477	21	30.16	6.57	51.62
chr6	149601494	149602817	1324	722	29	44.6	6.98	48.91
chr6	149664374	149665413	1040	460	22	30.08	6.37	51.55
chr6	149783919	149785462	1544	795	31	32.11	5.77	49.72
chr6	149805639	149807122	1484	665	40	36.61	3.95	46.95
chr6	149996894	149998367	1474	270	32	37.15	3.88	46.92
chr6	150389834	150390447	614	330	16	34.53	6.04	47.71
chr6	150793129	150794268	1140	854	25	38.35	6.57	46.33
chr6	150883321	150884755	1435	830	33	43.87	7.53	47.92
chr6	151076722	151077929	1208	673	25	34.87	8.22	47.65



chr6	151979609	151980914	1306	663	31	42.38	5.3	47.1
chr6	152165327	152166367	1041	524	24	39.74	5.75	46.65
chr6	152198179	152199597	1419	638	30	38.9	4.62	46.26
chr6	152858147	152859317	1171	564	24	32.88	4.93	49.32
chr6	153088165	153089076	912	647	19	30.36	4.93	51.57
chr6	153319414	153320602	1189	800	27	32.8	3.81	49.44
chr6	153413266	153414261	996	544	22	31.12	5.84	50.7
chr6	153505840	153506571	732	483	18	36.73	5.34	47.04
chr6	153523284	153524683	1400	610	34	57.09	5.34	53.15
chr6	153927249	153928268	1020	470	22	32.69	5.34	49.36
chr6	154005036	154005939	904	389	23	43.83	6.57	47.96
chr6	154392214	154393205	992	267	24	42.68	4.52	47.4
chr6	154422888	154423943	1056	376	22	30.89	5.34	50.76
chr6	155113318	155114794	1477	1269	31	35.1	3.97	47.35
chr6	155605966	155607171	1206	570	27	42.91	4.52	47.36
chr6	155619107	155619932	826	278	18	30.59	4.89	51.23
chr6	155817617	155818663	1047	518	23	35.26	4.93	47.33
chr6	155892733	155893564	832	566	19	31.64	4.23	49.89
chr6	156048310	156049681	1372	856	29	42.07	6.16	47.08
chr6	156720569	156721544	976	727	22	35.04	4.93	47.48
chr6	156794240	156795084	845	285	19	34.09	5.75	48.17
chr6	157070185	157070894	710	425	17	32.67	4.83	49.42
chr6	157092660	157093586	927	640	25	46.64	4.95	47.37
chr6	157506912	157508286	1375	894	30	45.33	4.89	49.39
chr6	157525348	157526072	725	288	19	32.67	4.79	49.35
chr6	158259331	158260312	982	693	21	34.71	4.93	47.7
chr6	159190369	159191216	848	588	20	32.59	4.05	49.42
chr6	159584082	159585000	919	642	20	30.21	3.81	51.75
chr6	159861550	159862727	1178	568	25	36.36	5.75	47.16
chr6	160102656	160104144	1489	507	32	36.43	3.53	47.17
chr6	160291515	160292778	1264	668	26	35.93	5.75	47.07
chr6	161411131	161412187	1057	543	29	35.05	4	47.52
chr6	161807703	161808378	676	404	18	40.73	6.57	46.55
chr6	162405538	162406440	903	702	19	30.84	4.11	50.85
chr6	163163996	163164869	874	610	21	36.9	4.95	46.74
chr6	165362053	165362672	620	339	17	39.97	6.57	46.81
chr6	165852216	165852962	747	334	19	40.45	4.93	46.88
chr6	166032512	166033420	909	323	19	30.52	4.93	51.32
chr6	167067186	167067886	701	456	17	34.14	5.34	48.03
chr6	167074344	167075349	1006	523	24	41.82	5.75	46.95
chr6	168361653	168362500	848	447	20	38.32	5.34	46.5
chr6	169421712	169422541	830	273	18	30.71	3.7	50.99
chr6	169604777	169605594	818	242	18	31.39	4.52	50.18
chr6	169702714	169703690	977	357	20	30.59	4.48	51.24
chr6	169839166	169840205	1040	458	26	48.64	6.98	49.9
chr6	170488875	170489980	1106	413	42	125.75	15.2	23.53
chr6	170882633	170884649	2017	592	42	44.18	5.45	48.06
chr7	9846	10682	837	285	57	184.31	14.07	14.29
chr7	2223263	2224581	1319	669	29	44.87	6.57	48.84
chr7	2303598	2304428	831	585	20	39.42	4.93	47.03
chr7	2604204	2604969	766	489	17	30.13	5.75	51.65
chr7	2793708	2794358	651	370	16	32.8	5.34	49.46

chr7	3554342	3555471	1130	800	24	34.91	5.34	47.61
chr7	3592691	3593655	965	252	21	35.66	5.34	47.29
chr7	3801813	3802722	910	333	21	38.91	4.93	46.27
chr7	3838460	3839103	644	352	16	33.28	4.93	48.94
chr7	5129264	5130170	907	690	21	39.09	5.34	46.3
chr7	5441073	5441807	735	245	17	30.59	4.78	51.24
chr7	5789508	5791120	1613	578	31	32.8	4.19	49.45
chr7	6279937	6280696	760	498	17	30.48	4.93	51.27
chr7	7065782	7067135	1354	681	29	37.71	4.95	46.53
chr7	7159994	7161169	1176	700	29	53.43	5.75	51.9
chr7	7295950	7297588	1639	668	41	57.49	5.65	53.66
chr7	7298291	7298900	610	273	18	39.85	6.19	46.62
chr7	7602404	7604604	2201	963	45	54.4	5.34	53.89
chr7	7617751	7618965	1215	460	28	33.7	4.07	48.58
chr7	7665826	7666797	972	592	21	35.27	5.34	47.3
chr7	7725990	7726927	938	536	24	35.16	4.45	47.07
chr7	7750732	7751952	1221	540	40	70.45	5.92	53.98
chr7	7987465	7988413	949	664	23	32.34	5.3	49.89
chr7	8115651	8116850	1200	595	25	31.47	5.39	49.99
chr7	8204759	8206468	1710	638	33	33.64	4.09	48.81
chr7	8291473	8292381	909	682	22	38.97	4.52	46.04
chr7	9444502	9445542	1041	765	23	35.59	7.39	47.17
chr7	9459261	9460428	1168	761	24	30.67	5.12	51.05
chr7	9522398	9523456	1059	769	21	30.74	6.98	50.97
chr7	9558151	9559193	1043	579	28	44.53	6.85	48.73
chr7	9686667	9688001	1335	732	26	32.64	5.75	49.39
chr7	9933172	9935248	2077	1323	47	68.34	5.34	54.89
chr7	10031621	10032521	901	419	23	44.03	5.75	48.09
chr7	10056060	10057123	1064	639	24	38.43	5.75	46.35
chr7	10169247	10170316	1070	479	22	30.21	4.52	51.72
chr7	10191093	10192151	1059	473	21	30.74	4.93	50.97
chr7	10561768	10562678	911	288	19	30.42	4.93	51.31
chr7	11243642	11244398	757	267	17	30.65	4.93	51.07
chr7	11369388	11370647	1260	814	29	31.73	4.85	49.75
chr7	11512442	11514389	1948	634	39	41.36	3.81	46.94
chr7	11732676	11733353	678	277	21	43.1	4.94	47.24
chr7	11770480	11771804	1325	649	29	36.25	5.1	46.94
chr7	11993958	11994910	953	518	20	32.21	4.93	49.97
chr7	12042763	12043640	878	499	20	36.46	5.75	47.12
chr7	12097547	12098364	818	607	19	33.59	4.33	48.72
chr7	12212042	12213063	1022	272	22	32.59	4.93	49.35
chr7	12235616	12236385	770	490	18	34.26	4.93	47.87
chr7	12244972	12245857	886	507	20	35.98	4.52	47.04
chr7	12375911	12376820	910	330	19	30.47	3.7	51.26
chr7	12389338	12390313	976	615	20	30.06	4.83	51.49
chr7	13058233	13059047	815	339	21	45.28	5.75	49.18
chr7	13278490	13279335	846	282	25	45.73	5.14	49.96
chr7	13666057	13667070	1014	425	21	33	6.16	49.18
chr7	13931205	13931987	783	398	18	33.46	5.34	48.67
chr7	14191192	14192200	1009	483	24	37.04	6.85	47.04
chr7	14300789	14301525	737	284	20	46.16	4.93	48.78
chr7	14453560	14454730	1171	705	25	36.72	6.16	47.04

chr7	14823479	14824198	720	365	17	32.91	4.93	49.34
chr7	14853019	14853752	734	249	19	41.38	4.93	46.91
chr7	15757388	15758265	878	288	20	36.46	5.34	47.12
chr7	15990182	15991236	1055	534	23	34.84	5.75	47.54
chr7	16948590	16949422	833	239	18	30.55	5.34	51.23
chr7	17519592	17520560	969	279	24	44.14	8.63	48.04
chr7	17599771	17600449	679	325	16	30.99	4.52	50.47
chr7	17666874	17667604	731	446	22	51.88	6.16	50.81
chr7	17803699	17804746	1048	420	21	31.28	4.52	50.39
chr7	18121280	18122878	1599	566	31	38.67	4.52	46.16
chr7	18254437	18255546	1110	622	27	48.64	5.75	50.1
chr7	18432285	18433180	896	630	23	33.82	4.11	48.82
chr7	18660675	18661720	1046	763	27	38.98	4.36	46.14
chr7	18771407	18772071	665	387	17	36.6	5.34	46.93
chr7	18859545	18860498	954	267	20	32.16	4.93	49.86
chr7	18918707	18919626	920	268	20	34.02	5.34	48.52
chr7	19439873	19441111	1239	428	28	45.21	5.34	49.15
chr7	19800733	19802192	1460	1179	34	53.51	5.34	52.1
chr7	20081088	20081973	886	368	27	59.56	7.61	55.22
chr7	20179874	20180662	789	280	18	32.18	5.24	49.95
chr7	20384993	20385835	843	357	21	43.29	6.16	47.94
chr7	20439111	20440027	917	537	20	33.19	4.83	49.06
chr7	20592036	20593182	1147	508	33	54.22	5.48	53.9
chr7	20924987	20925736	750	271	17	31.07	4.52	50.77
chr7	21248107	21248832	726	490	17	32.53	5.34	49.39
chr7	21325690	21326911	1222	709	26	38.03	5.75	46.42
chr7	21396636	21397533	898	684	21	38.57	4.83	46.21
chr7	21489474	21490451	978	605	21	30.9	5.33	50.66
chr7	21734863	21735657	795	243	18	32.73	4.52	49.31
chr7	22121655	22123315	1661	951	37	39.2	4.45	46.34
chr7	22182324	22183185	862	594	20	37.44	4.52	46.3
chr7	22268448	22269935	1488	270	30	38.79	4.43	46.1
chr7	22399326	22400698	1373	585	31	42.59	4.84	47.31
chr7	22709793	22711016	1224	672	27	30.46	4.79	51.29
chr7	22767642	22768578	937	539	23	41.67	6.16	47.25
chr7	23143416	23146011	2596	1789	61	30.36	4.16	51.62
chr7	23343831	23346360	2530	632	58	83.99	6.16	46.51
chr7	23358133	23359189	1057	473	30	52.08	5.48	51.2
chr7	23416055	23417768	1714	1129	37	31.03	5.07	50.48
chr7	23511813	23514584	2772	603	71	38.67	3.35	46.18
chr7	23642130	23643118	989	527	24	42.87	6.16	47.25
chr7	24035212	24035957	746	472	20	45.47	6.98	49.85
chr7	24176234	24177454	1221	769	24	30.57	5.34	51.24
chr7	24401736	24402579	844	580	19	34.15	4.11	48
chr7	24432459	24433068	610	332	16	35.69	5.75	47.22
chr7	24755504	24756406	903	626	20	34.99	4.11	47.57
chr7	25122260	25122960	701	424	17	34.14	4.93	48.03
chr7	25751280	25752175	896	246	19	31.21	4.52	50.51
chr7	27701461	27702892	1432	730	31	44.49	5.58	48.51
chr7	27725840	27726893	1054	291	24	38.54	6.52	46.26
chr7	27809670	27810675	1006	619	28	33.18	3.62	49.11
chr7	28004712	28005681	970	318	21	35.38	4.52	47.52

chr7	28499286	28500051	766	495	18	33.58	5.64	48.72
chr7	28635380	28636261	882	610	19	31.98	4.11	49.78
chr7	28666242	28666864	623	280	16	34.74	5.34	47.63
chr7	28708981	28709807	827	275	19	30.86	5.65	50.94
chr7	29154917	29155706	790	435	18	33.03	4.93	49.16
chr7	29460093	29461626	1534	507	30	32.88	4.95	49.31
chr7	29491784	29492705	922	244	20	33.9	4.52	48.66
chr7	29586357	29587223	867	506	22	41.66	6.16	47.25
chr7	30045546	30047115	1570	466	33	30.71	3.77	50.99
chr7	30325432	30327865	2434	1053	51	30.44	3.81	51.31
chr7	30585494	30586295	802	513	18	31.41	5.24	50.16
chr7	30711249	30711982	734	488	19	41.38	5.34	46.91
chr7	30984251	30985961	1711	1228	34	40.79	5.34	46.36
chr7	32177042	32178027	986	520	20	30.51	4.11	51.28
chr7	32197613	32198431	819	530	18	31.33	4.93	50.21
chr7	32234943	32236077	1135	535	23	30.86	6.16	50.88
chr7	32250564	32251403	840	582	18	30.16	4.52	51.72
chr7	32652996	32654666	1671	564	31	35.59	4.93	47.14
chr7	33276521	33277569	1049	458	24	34.79	4.95	47.61
chr7	34477898	34479377	1480	1070	32	48.29	5.34	49.41
chr7	34554494	34555360	867	421	19	32.82	4.52	49.42
chr7	34576579	34578044	1466	639	32	49.04	6.16	50.49
chr7	34630005	34630918	914	362	20	30.48	5.71	51.26
chr7	34945071	34945823	753	377	20	44.93	5.34	48.8
chr7	36218346	36219364	1019	664	21	32.35	4.89	49.89
chr7	36298067	36300265	2199	1530	58	57.78	5.27	53.1
chr7	36302517	36304320	1804	481	39	31.53	4.36	49.93
chr7	36379595	36380642	1048	434	23	35.21	6.57	47.2
chr7	36874344	36875245	902	392	20	35.04	5.34	47.43
chr7	36955812	36957023	1212	638	34	39.33	5.99	46.63
chr7	36981028	36981895	868	579	20	33.08	6.47	49.17
chr7	37177421	37178698	1278	488	34	65.15	6.16	54.8
chr7	37692963	37693803	841	595	19	34.33	4.93	47.74
chr7	37741378	37743097	1720	827	42	44.56	4.05	48.82
chr7	37819288	37820384	1097	280	24	36.62	4.93	46.95
chr7	38105265	38106393	1129	839	23	30.12	4.43	51.62
chr7	38180782	38181726	945	678	24	35.9	4.54	46.99
chr7	38893674	38894472	799	549	19	34.77	4.72	47.61
chr7	38996647	38997544	898	575	19	31.11	4.52	50.64
chr7	39079724	39080738	1015	321	21	32.95	5.75	49.29
chr7	39086533	39087448	916	637	21	38.54	5.34	46.22
chr7	40046747	40049102	2356	1384	49	63.93	4.57	54
chr7	40159529	40160556	1028	619	22	30.08	4.72	51.56
chr7	40856745	40857666	922	403	21	38.17	5.34	46.27
chr7	41107552	41108522	971	702	20	31.27	4.52	50.48
chr7	41917947	41918817	871	273	21	37.09	4.95	46.95
chr7	42272684	42273561	878	647	19	32.2	4.52	49.92
chr7	42465235	42466061	827	287	19	35.17	4.93	47.09
chr7	42676602	42677939	1338	633	26	32.5	6.16	49.38
chr7	42847759	42848632	874	604	19	32.42	5.34	49.55
chr7	43177314	43178063	750	420	18	35.53	5.34	47.2
chr7	43511530	43512394	865	592	19	32.93	4.93	49.39

chr7	43946781	43947841	1061	663	29	39.42	4.28	47.09
chr7	44104186	44105023	838	290	20	38.97	5.34	46.1
chr7	44852311	44853840	1530	1080	45	95.74	8.63	30.77
chr7	44871239	44872306	1068	719	26	45.52	5.24	50
chr7	46425286	46426186	901	313	19	30.95	4.93	50.5
chr7	46438615	46439581	967	557	21	35.55	6.98	47.19
chr7	46532505	46533866	1362	403	29	40.41	4.78	46.82
chr7	46822550	46823339	790	280	18	33.03	6.57	49.16
chr7	47621936	47622820	885	605	20	33.82	3.94	48.81
chr7	47810449	47811388	940	635	25	33.33	5.92	48.71
chr7	48149135	48150178	1044	421	22	31.09	4.89	50.71
chr7	48248454	48249202	749	237	17	31.13	4.11	50.63
chr7	48300448	48301683	1236	709	32	63.35	7.8	55.24
chr7	48956901	48957882	982	621	21	34.71	5.34	47.7
chr7	49307358	49308183	826	569	20	39.75	6.98	46.7
chr7	49360724	49361470	747	487	18	32.06	4.57	49.81
chr7	50061757	50063412	1656	1008	42	68.25	6.85	54.07
chr7	50069136	50070382	1247	447	33	56.03	6.09	53.79
chr7	51272796	51273486	691	270	17	34.8	6.16	47.53
chr7	51310285	51311631	1347	1068	33	55.98	5.75	53.65
chr7	51402152	51403224	1073	554	21	30.07	5.75	51.46
chr7	51769114	51769953	840	345	21	43.5	6.57	48.04
chr7	53654241	53655066	826	589	18	30.94	4.11	50.56
chr7	53737658	53738547	890	269	20	35.75	5.75	47.03
chr7	55867867	55868928	1062	319	21	30.6	4.93	51.21
chr7	56447969	56448871	903	611	22	39.34	4.52	46.61
chr7	56648701	56649469	769	275	18	34.32	5.75	47.81
chr7	57606006	57610532	4527	996	130	58.26	3.98	54
chr7	57766093	57771672	5580	995	162	73.72	3.99	57.14
chr7	57925451	57926739	1289	797	36	41.49	4.57	47.1
chr7	57957827	57960266	2440	1911	53	46.88	4.28	47.52
chr7	58019550	58022288	2739	1314	73	33.75	4.14	48.69
chr7	61513003	61514590	1588	1086	32	33.78	4.71	48.67
chr7	61542850	61547387	4538	3084	110	35.57	3.11	47.2
chr7	61565411	61566527	1117	622	23	31.72	4.93	49.72
chr7	62637858	62638694	837	565	19	34.57	6.57	47.74
chr7	62820845	62822004	1160	586	25	37.29	6.57	46.71
chr7	63879646	63880791	1146	467	26	37.26	5.33	46.53
chr7	63999175	64000188	1014	405	25	43.02	6.3	47.59
chr7	64570445	64571304	860	289	29	47.71	6.4	49.25
chr7	65036191	65037215	1025	643	22	30.23	5.12	51.74
chr7	65044033	65045156	1124	553	28	33.23	4.36	49.09
chr7	65079624	65080796	1173	668	26	35.82	5.71	47.16
chr7	65097901	65099426	1526	805	36	42.57	7.88	47.11
chr7	66234966	66235979	1014	477	24	41.33	5.75	46.91
chr7	67373163	67374080	918	627	19	30.05	5.75	51.47
chr7	68783679	68784421	743	513	17	31.49	4.52	49.89
chr7	69179948	69181057	1110	631	27	48.12	6.12	49.42
chr7	69506850	69507797	948	624	20	32.48	4.11	49.47
chr7	70078726	70080093	1368	653	33	38.91	4.36	46.3
chr7	71896819	71897584	766	494	17	30.13	4.93	51.65
chr7	72092560	72093997	1438	765	27	31.69	5.34	49.76

chr7	72245010	72246199	1190	715	24	31.99	4.93	49.85
chr7	72722642	72723768	1127	701	23	31.24	5.34	50.47
chr7	73338046	73338794	749	474	18	31.94	5.71	49.75
chr7	74137781	74139332	1552	1309	31	36.18	3.85	46.89
chr7	74145014	74146323	1310	539	34	62.26	6.12	54.7
chr7	75257846	75258452	607	325	19	47.61	6.09	49.17
chr7	75729358	75730788	1431	603	29	39.14	6.16	46.27
chr7	76285276	76286375	1100	541	23	32.54	5.34	49.35
chr7	76796433	76797731	1299	735	28	36.8	6.47	46.79
chr7	76806895	76808544	1650	1239	36	51.22	5.34	51.25
chr7	76946119	76947676	1558	1281	31	34.71	3.97	47.7
chr7	77565900	77567478	1579	752	37	34.37	4.28	47.84
chr7	77886997	77887915	919	278	20	34.07	7.39	48.23
chr7	79173497	79174154	658	375	17	37.11	6.16	46.96
chr7	79181345	79182183	839	221	18	30.22	4.11	51.69
chr7	79362829	79363719	891	537	24	38.17	5.48	46.23
chr7	80302006	80303023	1018	483	22	32.8	5.75	49.43
chr7	80589483	80590450	968	544	20	31.43	4.52	50.12
chr7	80873859	80874708	850	405	19	33.8	4.52	48.83
chr7	80914582	80916230	1649	1127	36	51.27	4.52	51.47
chr7	81466691	81467592	902	274	19	30.89	4.52	50.73
chr7	81747466	81749015	1550	503	33	44.67	4.11	48.84
chr7	83029679	83030609	931	264	21	37.63	4.93	45.83
chr7	83109912	83110700	789	533	20	42.29	5.34	47.36
chr7	83206705	83207610	906	655	19	30.68	5.34	51.01
chr7	83356759	83358144	1386	809	29	36.15	6.47	46.99
chr7	83467241	83468046	806	556	21	41.46	4.19	47.02
chr7	84029043	84030348	1306	710	29	45.59	5.75	50.26
chr7	84415833	84416870	1038	415	27	53.46	6.98	51.82
chr7	84795476	84797075	1600	680	32	42.25	4.52	47.13
chr7	84857942	84858747	806	544	20	41.1	5.75	46.38
chr7	85167206	85168155	950	683	21	36.52	4.93	46.93
chr7	85583387	85583969	583	291	15	32.66	6.16	49.32
chr7	85652201	85652997	797	270	18	32.61	4.52	49.4
chr7	85794253	85795125	873	604	25	55.92	6.16	53.17
chr7	86235459	86236375	917	620	20	30.31	4.19	51.55
chr7	86457569	86458390	822	358	20	40.02	6.98	46.54
chr7	86780948	86784347	3400	2164	78	36.83	3.62	46.89
chr7	86963880	86964711	832	288	18	30.6	4.52	51.25
chr7	87134786	87136772	1987	1225	39	46.22	6.57	48.62
chr7	87276124	87277090	967	377	22	35.55	5.75	47.19
chr7	87360947	87361976	1030	644	26	49.31	6.98	51.02
chr7	87508921	87510896	1976	1703	42	30.88	4.12	50.82
chr7	87642506	87644042	1537	971	32	45.32	4.52	49.28
chr7	87715993	87716647	655	370	16	32.54	5.34	49.34
chr7	88057471	88058201	731	442	18	36.8	5.34	46.81
chr7	88456265	88457126	862	542	21	41.99	6.16	47.06
chr7	88566139	88567334	1196	517	25	35.46	4.93	47.4
chr7	89127698	89128526	829	330	18	30.77	5.34	50.95
chr7	89264603	89265370	768	362	21	33.04	4.67	49.1
chr7	89414562	89415434	873	592	19	32.48	4.93	49.44
chr7	89471930	89472698	769	510	18	34.32	5.75	47.81

chr7	89486937	89488244	1308	592	28	41.45	6.16	46.99
chr7	89529340	89530593	1254	685	27	40.31	4.93	46.87
chr7	89754537	89755412	876	340	19	32.31	6.57	50.09
chr7	89965181	89966143	963	396	21	35.77	4.52	47.11
chr7	89986683	89988034	1352	695	32	41.24	5.14	46.77
chr7	90004275	90006014	1740	551	34	46.09	4.48	49.38
chr7	90504315	90506110	1796	1514	43	41.51	4.71	47.2
chr7	90507724	90508424	701	285	18	33.01	5.83	49.15
chr7	90855473	90856296	824	282	22	44.63	6.16	48.91
chr7	91095845	91097221	1377	1095	32	33.78	5.34	48.7
chr7	91354474	91355517	1044	752	21	31.48	4.11	49.97
chr7	91501741	91503494	1754	1338	36	38.84	5.26	46.24
chr7	91568662	91570254	1593	366	40	30.02	3.64	51.48
chr7	91804594	91805429	836	255	18	30.38	4.52	51.65
chr7	91941045	91942979	1935	452	44	56.03	4.57	53.67
chr7	92014047	92016678	2632	670	64	61.96	4.98	54.55
chr7	92312186	92313077	892	638	21	40.03	5.75	46.56
chr7	92403528	92404464	937	594	24	31.93	5.17	49.73
chr7	92436794	92437664	871	343	21	41.4	6.16	47.03
chr7	92466973	92468640	1668	630	33	30.31	3.81	51.55
chr7	92546046	92546773	728	390	18	33.28	5.33	48.86
chr7	92925726	92927609	1884	1384	44	50.24	5.59	51.64
chr7	93004098	93005534	1437	1116	31	46.58	4.52	47.76
chr7	93029401	93030053	653	366	16	32.67	5.34	49.42
chr7	93097002	93097990	989	718	20	30.36	5.34	51.62
chr7	93375393	93376028	636	349	16	32.47	5.18	49.48
chr7	93481662	93482585	924	280	20	33.79	4.11	48.76
chr7	93507162	93508422	1261	604	27	39.94	4.93	46.68
chr7	93681456	93682302	847	586	19	33.98	5.75	48.64
chr7	93774729	93775614	886	432	21	40.42	4.93	46.82
chr7	94161339	94162359	1021	348	25	45.33	5.75	49.31
chr7	94338955	94339882	928	281	20	33.57	4.52	48.57
chr7	95468274	95469139	866	381	19	31.36	4.38	50.2
chr7	95500230	95501405	1176	578	24	32.65	6.98	49.35
chr7	95949725	95951758	2034	1529	49	39.21	4	46.32
chr7	96097470	96098535	1066	501	22	30.4	6.16	51.46
chr7	96611463	96612336	874	526	20	36.71	4.93	46.91
chr7	96952587	96953608	1022	571	21	32.59	5.34	49.35
chr7	97174320	97175154	835	463	18	30.44	4.52	51.32
chr7	97294618	97296363	1746	265	36	46.43	4.93	48.35
chr7	97680223	97681171	949	672	21	32.47	6.47	49.48
chr7	98252141	98253999	1859	463	32	34.69	5.34	47.79
chr7	99158140	99159346	1207	763	30	33.67	4.55	48.67
chr7	99214226	99215342	1117	635	23	31.72	5.75	49.72
chr7	99676565	99678171	1607	801	35	39.9	5.83	46.6
chr7	99678558	99680504	1947	1491	50	38.56	3.42	46.27
chr7	100035015	100036405	1391	758	31	35.7	4.79	47.2
chr7	100701655	100702247	593	274	17	42.17	6.16	47.04
chr7	100878575	100879498	924	256	21	38.05	6.16	46.4
chr7	101523342	101525356	2015	1387	41	30.68	4.16	50.97
chr7	102352678	102353653	976	378	22	32.77	5.12	49.44
chr7	102741230	102741939	710	434	19	39.09	4.57	46.36

chr7	103181993	103183147	1155	493	24	33.66	5.75	48.63
chr7	103821404	103822485	1082	406	24	33.03	4.19	49.16
chr7	103837035	103838435	1401	981	33	46.58	5.33	47.8
chr7	104132261	104133046	786	244	18	33.27	4.11	48.88
chr7	104192343	104192982	640	414	16	33.55	5.75	48.55
chr7	105198509	105199499	991	536	22	34.22	6.98	47.93
chr7	105720381	105721694	1314	563	33	33.28	3.57	48.93
chr7	105843013	105844650	1638	239	31	36.97	3.7	46.98
chr7	106112409	106113706	1298	623	28	41.46	5.71	47.02
chr7	106234993	106235996	1004	432	23	37.64	4.93	45.87
chr7	106351201	106352051	851	264	19	30.02	4.95	51.51
chr7	106407748	106408700	953	279	20	32.21	4.93	49.97
chr7	106476651	106477668	1018	731	25	32.52	5.32	49.39
chr7	106723846	106724792	947	596	22	36.69	6.98	46.9
chr7	106825176	106826202	1027	328	26	35.11	4.61	47.41
chr7	107365250	107366152	903	301	19	30.84	4.93	50.85
chr7	108253229	108254634	1406	547	30	41.15	5.51	46.41
chr7	108288511	108290076	1566	1033	33	47.73	4.93	49.16
chr7	108299654	108300393	740	359	19	39.31	5.18	46.54
chr7	108373669	108374526	858	571	20	37.69	4.11	46.5
chr7	108757190	108757710	521	260	16	48.45	6.57	49.14
chr7	108988329	108989231	903	285	21	39.34	4.52	46.61
chr7	109707705	109709188	1484	291	31	44.14	4.93	48.01
chr7	109737977	109739273	1297	603	25	30.77	6.57	50.99
chr7	110104568	110106355	1788	464	35	40.92	4.52	46.46
chr7	110759431	110760350	920	522	23	41.62	4.83	47.13
chr7	110869226	110870036	811	287	18	31.79	5.34	49.76
chr7	110934828	110935900	1073	730	22	30.07	5.34	51.46
chr7	111069746	111070696	951	378	24	44.76	5.29	48.86
chr7	111137885	111138696	812	540	21	45.5	4.93	49.85
chr7	111215101	111216335	1235	495	28	33.3	4.45	48.83
chr7	111633709	111634582	874	288	20	36.71	5.75	46.91
chr7	111666287	111666979	693	248	17	34.67	4.52	47.75
chr7	111851409	111852471	1063	776	21	30.55	4.52	51.18
chr7	112415050	112416346	1297	668	26	34.36	5.75	47.85
chr7	112417967	112418664	698	430	17	34.34	6.16	47.84
chr7	112435198	112436189	992	605	20	30.21	5.34	51.73
chr7	112486683	112488169	1487	1206	32	36.52	3.88	46.93
chr7	112579367	112582537	3171	2401	81	52.91	4.14	50.57
chr7	112734093	112735995	1903	1444	44	64.85	6.92	53.76
chr7	113260531	113262303	1773	1485	36	47.61	4.86	48.94
chr7	113775089	113775988	900	447	19	31	5.34	50.47
chr7	113991048	113992101	1054	385	21	30.98	5.75	50.46
chr7	114575905	114576725	821	563	20	35.97	5.33	47.04
chr7	115039315	115040150	836	577	20	35.02	4.57	47.52
chr7	115404741	115405560	820	283	19	35.61	4.93	47.29
chr7	115447981	115449316	1336	589	27	36.22	5.75	46.98
chr7	115943331	115944858	1528	554	32	32.52	3.77	49.39
chr7	116205910	116207720	1811	1101	42	62.39	6.69	55.22
chr7	116245535	116246788	1254	596	29	30.86	4.76	50.87
chr7	116443789	116445015	1227	509	28	33.71	5.48	48.62
chr7	116641369	116642575	1207	666	30	55.96	6.98	53.53



chr7	116803234	116803850	617	331	17	40.21	6.57	46.7
chr7	116991995	116992860	866	275	19	32.88	5.75	49.29
chr7	117001725	117002689	965	579	21	31.02	7.15	50.51
chr7	117133492	117134965	1474	595	30	35.52	3.81	47.24
chr7	117243320	117244496	1177	617	27	44.57	4.93	48.85
chr7	117694864	117695689	826	563	22	34.24	4.11	47.89
chr7	117871363	117872341	979	290	21	34.88	4.93	47.64
chr7	118118679	118119638	960	488	25	49.4	6.98	51.43
chr7	118307745	118308758	1014	270	24	38.08	5.06	46.41
chr7	118446053	118447232	1180	786	32	44.33	5.6	48.28
chr7	118803856	118805068	1213	555	25	34.62	6.57	47.82
chr7	118847528	118848211	684	271	18	40.13	5.75	46.69
chr7	119079927	119080612	686	266	17	34.24	6.04	47.89
chr7	119157946	119158985	1040	482	25	44.13	5.75	47.92
chr7	119311745	119312825	1081	384	24	33.08	5.71	49.19
chr7	119553598	119554356	759	427	21	49.56	5.34	51.23
chr7	119933985	119935057	1073	783	23	33.9	5.75	48.62
chr7	120161848	120162764	917	284	19	30.1	5.34	51.55
chr7	120548482	120549404	923	463	20	33.85	4.52	48.75
chr7	120581384	120582773	1390	888	31	41.69	4.47	47.22
chr7	120679701	120680476	776	195	19	38.44	4.93	46.41
chr7	120685401	120686373	973	404	20	31.17	4.11	50.55
chr7	121651369	121653038	1670	1105	38	58.22	5.34	54.26
chr7	122820095	122821107	1013	275	25	45.84	6.98	50.04
chr7	123041103	123041904	802	528	19	36.74	5.34	46.95
chr7	123072453	123073365	913	657	19	30.31	4.11	51.54
chr7	123217687	123218568	882	256	19	31.98	5.34	49.78
chr7	123841629	123842376	748	432	17	31.19	4.11	50.55
chr7	124449222	124450305	1084	291	24	32.93	4.57	49.33
chr7	125101657	125102617	961	609	20	31.79	4.93	49.8
chr7	125150872	125152110	1239	530	25	33.38	4.52	48.69
chr7	125186585	125187810	1226	569	33	64.06	8.63	54.08
chr7	125218355	125219170	816	537	20	40.42	6.98	46.89
chr7	125424065	125425023	959	286	20	31.9	4.93	49.83
chr7	125600407	125601628	1222	641	24	30.53	5.34	51.25
chr7	125761693	125763455	1763	1335	34	36.27	4.78	46.91
chr7	125901934	125903536	1603	289	39	66.49	5.34	55.13
chr7	126445320	126446225	906	510	24	48.43	5.75	49.19
chr7	126590923	126591798	876	254	20	36.58	6.16	46.91
chr7	126704897	126705701	805	518	20	41.17	5.34	46.48
chr7	126713673	126714451	779	367	18	33.7	5.75	48.57
chr7	127225208	127226612	1405	728	38	41.3	4.85	46.96
chr7	127862552	127864399	1848	461	38	36.38	5.3	47.21
chr7	128621410	128623488	2079	1088	45	37.96	4.24	46.51
chr7	128714277	128715659	1383	978	36	50.76	5.14	51.73
chr7	128723267	128724208	942	401	20	32.8	6.57	49.45
chr7	128845891	128846574	684	262	18	35.23	4.84	47.22
chr7	128959538	128960353	816	280	18	31.51	5.34	49.84
chr7	129057375	129057989	615	272	16	35.32	6.16	47.43
chr7	129585089	129586279	1191	742	29	34.13	4.44	48.07
chr7	130269536	130270361	826	537	20	39.75	6.16	46.7
chr7	130723780	130725072	1293	734	27	35.6	5.12	47.19

chr7	131057596	131059030	1435	1030	33	50.76	5.75	51.6
chr7	131086738	131087661	924	657	23	33.24	6.29	49.06
chr7	131169645	131171142	1498	1157	33	31.86	4.65	49.73
chr7	131706250	131707241	992	532	24	42.68	6.16	47.4
chr7	132437231	132437910	680	391	16	30.92	5.34	50.56
chr7	132515174	132515971	798	552	18	30.56	3.94	51.25
chr7	132956935	132958516	1582	994	35	34.26	3.99	47.88
chr7	133441550	133442421	872	597	21	41.33	4.52	46.82
chr7	133498427	133499209	783	259	18	33.46	5.75	48.67
chr7	133856509	133857373	865	580	19	32.93	4.93	49.39
chr7	133873583	133874495	913	692	20	34.41	4.93	47.76
chr7	134308253	134309166	914	677	19	30.26	4.52	51.67
chr7	134584764	134585650	887	374	22	40.35	5.34	46.88
chr7	134730033	134731279	1247	541	26	32.81	7.7	49.4
chr7	135093601	135095054	1454	748	33	43.71	6.09	47.9
chr7	135195457	135197876	2420	1297	65	74.97	4.71	57.69
chr7	135739423	135741005	1583	1252	34	46.86	4.11	47.2
chr7	135910815	135911789	975	326	21	35.1	4.52	47.34
chr7	136742330	136743266	937	289	21	37.27	5.34	46.57
chr7	136969324	136970521	1198	547	25	35.36	5.75	47.48
chr7	136979976	136980627	652	287	16	32.74	4.93	49.34
chr7	137481985	137482826	842	257	20	38.71	4.93	46.22
chr7	137554684	137555602	919	279	20	30.21	4.57	51.75
chr7	137849581	137850777	1197	564	24	31.66	5.34	49.84
chr7	138155806	138156797	992	434	20	30.21	5.75	51.73
chr7	138852747	138854175	1429	290	31	43.78	4.33	47.79
chr7	140097661	140098582	922	400	22	32.83	4.47	49.41
chr7	140490900	140493184	2285	1785	59	32.73	3.31	49.33
chr7	141062892	141064379	1488	729	33	47.86	6.16	49.19
chr7	141430893	141432141	1249	712	25	32.92	6.98	49.3
chr7	141495928	141497131	1204	484	24	31.34	5.34	50.18
chr7	141593530	141594184	655	251	17	37.32	5.75	46.67
chr7	141844896	141846477	1582	1028	31	39.44	4.93	47.06
chr7	142172010	142172830	821	401	20	40.09	6.16	46.58
chr7	142200656	142202075	1420	667	28	35.98	5.34	47.06
chr7	142420050	142421679	1630	1042	33	35.33	5.71	47.48
chr7	142525096	142526538	1443	927	31	33.2	4.11	49.14
chr7	142622120	142623240	1121	290	24	35.37	4.93	47.53
chr7	143220601	143222471	1871	1327	52	40.74	4.16	46.63
chr7	143282183	143283822	1640	990	34	30.78	3.77	50.99
chr7	143290145	143291535	1391	736	42	48.75	4.48	50.47
chr7	143476456	143478866	2411	1221	49	31.75	3.42	49.83
chr7	143883452	143884184	733	392	18	32.96	5.33	49.27
chr7	144133166	144134143	978	284	20	30.91	4.11	50.61
chr7	144179824	144180983	1160	711	24	33.41	4.93	48.7
chr7	145014662	145015565	904	587	19	30.79	4.52	50.91
chr7	145746067	145746726	660	349	16	32.21	5.75	49.94
chr7	146285523	146286462	940	284	21	37.1	4.52	46.88
chr7	146322745	146323939	1195	541	24	31.75	6.16	49.81
chr7	146468202	146469243	1042	379	21	31.58	6.57	49.97
chr7	147062632	147063621	990	717	21	34.28	4.93	47.79
chr7	147276203	147277242	1040	783	24	39.79	5.34	46.64

chr7	147705869	147708066	2198	1704	46	40.27	4.11	46.85
chr7	148000281	148001660	1380	1031	32	44.21	5.82	48.17
chr7	148379747	148381311	1565	1299	32	30.92	4.11	50.59
chr7	148577572	148578934	1363	703	33	30.81	5.06	50.96
chr7	148716924	148717948	1025	398	21	31.43	5.24	50.07
chr7	148971461	148972370	910	244	22	38.91	4.93	46.27
chr7	149366801	149367959	1159	525	26	30.28	4.79	51.67
chr7	150262979	150264048	1070	513	27	51.26	5.75	51.32
chr7	150353306	150354258	953	385	21	36.34	5.34	47.04
chr7	151022761	151023729	969	555	20	31.37	4.52	50.25
chr7	151179626	151180581	956	559	20	32.05	5.34	49.81
chr7	151317012	151317736	725	289	17	32.26	6.12	50.03
chr7	151820098	151821076	979	282	22	34.88	5.34	47.64
chr7	151955479	151956285	807	555	19	34.85	5.58	47.58
chr7	153258425	153259303	879	527	19	32.14	4.52	49.88
chr7	153929272	153930315	1044	451	21	31.48	5.34	49.97
chr7	154458232	154459062	831	571	18	30.66	4.93	51.04
chr7	155034163	155035297	1135	289	24	34.65	4.52	47.66
chr7	156357555	156358549	995	574	22	34.01	4.93	48.54
chr7	156387814	156388781	968	550	20	31.43	6.16	50.12
chr7	156972120	156973217	1098	549	24	36.57	6.57	46.88
chr7	157173804	157174657	854	504	19	32.04	3.98	49.76
chr7	157253439	157254646	1208	683	436	3100	166.35	0
chr7	157416289	157416905	617	283	17	40.21	6.16	46.7
chr7	158678343	158679349	1007	645	22	33.37	6.57	48.68
chr7	159124352	159125431	1080	689	23	33.55	4.93	48.64
chr8	161142	162168	1027	428	21	32.33	4.93	49.98
chr8	166203	167410	1208	574	28	41.66	6.47	47.19
chr8	181189	182458	1270	748	28	35.12	6.16	47.38
chr8	482940	484652	1713	1271	33	40.7	3.7	46.5
chr8	496979	497830	852	272	19	33.68	4.93	48.55
chr8	719866	720891	1026	408	22	32.38	6.16	49.71
chr8	1403109	1404033	925	393	21	37.99	5.75	46.41
chr8	2574631	2575813	1183	453	31	45.29	5.98	49.32
chr8	3409019	3409951	933	647	21	37.51	4.11	46.02
chr8	4399977	4400795	819	558	19	31.86	4.95	49.73
chr8	4974553	4975736	1184	896	30	51.45	5.33	51.85
chr8	5214887	5215670	784	503	18	33.39	4.93	48.71
chr8	5360147	5360976	830	275	18	30.71	4.11	50.99
chr8	5595378	5596300	923	633	21	38.11	4.52	46.34
chr8	6152248	6153547	1300	695	28	36.75	4.19	46.96
chr8	6348220	6349995	1776	436	36	45.02	5.75	49.06
chr8	6697047	6698863	1817	1228	37	46.76	5.75	47.47
chr8	7395496	7396374	879	591	21	36.58	6.09	46.89
chr8	8161022	8161577	556	278	15	37.66	6.16	46.06
chr8	8591362	8592812	1451	821	35	42.25	4.07	47.2
chr8	8680932	8683017	2086	1562	50	37.28	3.9	46.7
chr8	8750910	8752237	1328	541	32	42.59	5.14	47.28
chr8	8820615	8821820	1206	633	25	34.97	5.75	47.66
chr8	9508783	9510221	1439	581	31	32.72	3.39	49.38
chr8	9562346	9564263	1918	275	54	48.49	4.2	49.44
chr8	10977432	10978805	1374	634	27	30.52	5.77	51.31

chr8	11038343	11038892	550	275	15	37.66	6.16	46.06
chr8	11223556	11224336	781	372	18	33.58	6.16	48.63
chr8	11241871	11242727	857	570	20	37.76	5.34	46.7
chr8	11377075	11378711	1637	1317	38	45.7	4.91	49.7
chr8	11546346	11547179	834	547	18	30.49	4.93	51.26
chr8	12050110	12051045	936	438	24	40.21	6.33	46.74
chr8	12600840	12603864	3025	1045	61	66.38	3.98	53.99
chr8	13311242	13312055	814	435	20	40.56	5.75	46.89
chr8	14091387	14092374	988	576	20	30.41	4.11	51.4
chr8	14189478	14190273	796	272	18	32.67	4.52	49.34
chr8	14282411	14283503	1093	575	23	32.89	4.52	49.36
chr8	14555492	14556750	1259	514	26	36.17	6.57	46.93
chr8	14770163	14771078	916	522	22	38.54	4.93	46.22
chr8	15235161	15235939	779	286	18	33.7	5.34	48.57
chr8	15521820	15522875	1056	667	23	34.79	4.52	47.62
chr8	15738524	15739411	888	306	19	31.65	4.93	49.86
chr8	16399571	16400246	676	345	16	31.17	4.93	50.55
chr8	16785128	16786116	989	716	21	34.33	4.52	47.78
chr8	16873315	16874583	1269	661	29	42.18	6.47	47.1
chr8	17098653	17099818	1166	569	27	45.21	6.57	49.18
chr8	17636829	17637671	843	569	19	34.21	4.52	47.87
chr8	18300411	18301251	841	492	18	30.11	4.93	51.58
chr8	18502825	18503622	798	427	19	37	5.75	46.97
chr8	18551780	18552620	841	384	20	38.77	4.93	46.03
chr8	18588604	18590026	1423	1151	31	47.33	4.52	48.22
chr8	18683342	18684775	1434	919	30	42.8	5.34	47.4
chr8	19245909	19246683	775	513	20	43.3	5.75	48.08
chr8	19657423	19658655	1233	689	24	30.04	5.75	51.46
chr8	19819003	19819839	837	597	20	34.96	4.95	47.7
chr8	19840446	19841685	1240	625	29	49.41	5.34	51.55
chr8	19989153	19990885	1733	1148	33	36.4	4.93	47.14
chr8	20074809	20076136	1328	535	27	36.6	5.34	46.9
chr8	21157223	21158017	795	412	21	42.25	5.33	47.15
chr8	21994774	21995907	1134	832	33	55.17	5.14	53.26
chr8	22101727	22103511	1785	1161	39	32.33	4.05	50
chr8	22286695	22287937	1243	641	29	30.27	3.74	51.65
chr8	22356673	22357443	771	412	19	38.78	5.34	46.03
chr8	22743359	22744294	936	697	21	33.19	4.57	49.08
chr8	23467838	23468696	859	662	19	33.28	4.52	48.91
chr8	23768555	23770182	1628	1123	31	40.95	4.52	46.35
chr8	23939011	23940066	1056	272	23	33.08	4.78	49.17
chr8	23950314	23951190	877	439	19	32.26	5.75	49.99
chr8	24572524	24573492	969	276	20	31.37	4.93	50.25
chr8	25329653	25331156	1504	263	33	33.6	3.77	48.7
chr8	25586770	25587960	1191	595	25	31.27	4.57	50.47
chr8	25616523	25617674	1152	613	23	30.08	4.93	51.53
chr8	25959349	25959999	651	280	16	31.46	5.18	50.01
chr8	26212920	26213803	884	482	20	36.1	7.39	47.01
chr8	26655277	26656579	1303	630	27	37.82	6.16	46.64
chr8	27802095	27802891	797	341	19	37.06	5.34	46.98
chr8	28179870	28182238	2369	951	49	49.15	3.81	50.67
chr8	28428543	28429644	1102	662	23	32.45	4.52	49.54

chr8	28518543	28520030	1488	499	36	60.43	6.57	55.64
chr8	28945708	28946761	1054	779	23	30.74	4.57	50.99
chr8	28948492	28950116	1625	1359	32	39.75	4.62	46.65
chr8	29386510	29388068	1559	1072	34	30.26	4.2	51.68
chr8	29462360	29464726	2367	1600	61	37.4	5.14	46.71
chr8	30123332	30124051	720	428	18	37.55	5.75	45.96
chr8	30960054	30961208	1155	675	28	34.44	5.87	47.76
chr8	31708254	31709157	904	620	20	34.93	4.93	47.57
chr8	31811461	31812869	1409	771	29	40.21	4.52	46.68
chr8	31842916	31843858	943	288	20	32.75	5.34	49.37
chr8	32671605	32672578	974	430	21	35.16	4.93	47.17
chr8	32964929	32965974	1046	465	21	31.38	5.75	50.17
chr8	33160603	33161444	842	437	20	38.71	5.75	46.22
chr8	33623076	33623923	848	276	19	33.92	4.93	48.7
chr8	33636806	33637498	693	339	18	35.66	5.71	47.23
chr8	34065484	34066951	1468	816	32	48.93	5.34	50.27
chr8	36400810	36401644	835	605	19	34.69	4.52	47.81
chr8	36687480	36688137	658	377	17	32.93	4.88	49.36
chr8	36689594	36690541	948	440	20	32.48	4.93	49.47
chr8	36858946	36860098	1153	458	23	30.03	6.98	51.47
chr8	37737576	37738935	1360	480	34	34.67	4.81	47.74
chr8	38131033	38132372	1340	1062	30	30.45	4.16	51.3
chr8	38295879	38299015	3137	1362	67	45.36	4.36	49.49
chr8	38302125	38303381	1257	651	25	32.55	5.34	49.37
chr8	38680985	38683050	2066	715	45	43.84	5.88	47.95
chr8	38763318	38764368	1051	563	26	30.95	4.08	50.52
chr8	38859388	38861735	2348	1697	55	39.71	4.89	46.57
chr8	39045573	39046392	820	239	19	35.61	5.34	47.29
chr8	39324404	39325512	1109	569	24	35.99	5.34	47.09
chr8	39359643	39360251	609	342	20	57.58	6.98	54.11
chr8	39472075	39472805	731	268	17	32.22	4.52	49.98
chr8	39545598	39546487	890	647	19	31.54	6.16	49.9
chr8	39582611	39583599	989	494	20	30.36	4.93	51.62
chr8	39769476	39771082	1607	552	33	36.33	4.19	47.03
chr8	40056534	40057427	894	394	19	31.32	4.93	50.32
chr8	41447485	41448351	867	578	19	32.82	5.34	49.42
chr8	41709881	41710821	941	281	20	32.86	4.52	49.3
chr8	42877039	42878084	1046	552	23	31.14	4.57	50.63
chr8	42928243	42929382	1140	525	25	37.18	6.04	46.91
chr8	47972736	47973607	872	266	20	36.83	5.34	46.86
chr8	48033019	48034557	1539	1017	31	38.37	4.72	46.39
chr8	48048093	48049105	1013	584	21	33.06	5.75	49.12
chr8	48325014	48326261	1248	525	32	47.39	5.82	48.3
chr8	48365061	48366515	1455	679	32	41.18	6.63	46.58
chr8	48448330	48450318	1989	1537	44	42.34	4.75	47.02
chr8	48469817	48470692	876	600	21	41.07	5.34	46.39
chr8	48610172	48611349	1178	678	25	33.18	5.06	49.12
chr8	49656155	49658192	2038	622	45	62.43	5.75	55.7
chr8	49679900	49680864	965	601	20	31.58	4.93	50
chr8	49842472	49843445	974	368	20	31.12	5.75	50.72
chr8	50079950	50080928	979	344	23	32.94	5.52	49.39
chr8	50125804	50126834	1031	668	23	36.13	6.16	46.98

chr8	50402632	50403993	1362	688	32	55.05	5.34	53.56
chr8	50549756	50550606	851	446	20	37.73	5.3	46.61
chr8	50643948	50644779	832	277	18	30.6	4.52	51.25
chr8	50924304	50925285	982	348	22	34.71	4.11	47.7
chr8	51067549	51068804	1256	778	27	40.21	6.16	46.67
chr8	51194180	51194839	660	265	17	36.96	4.93	46.94
chr8	51219176	51219967	792	505	21	46.98	5.75	47.69
chr8	51324121	51324862	742	366	19	36.81	4.95	46.8
chr8	51439233	51439951	719	353	17	32.97	4.52	49.24
chr8	51581476	51582437	962	246	21	35.83	5.75	47.08
chr8	52468251	52469234	984	726	21	34.6	4.52	47.68
chr8	52749544	52750621	1078	338	26	35.78	5.59	47.16
chr8	52755046	52756278	1233	716	29	33.71	4.57	48.6
chr8	52818877	52820352	1476	567	32	34.9	4.45	47.6
chr8	53490224	53491215	992	727	21	34.17	5.34	47.99
chr8	53568014	53569963	1950	577	37	44.34	4.52	48.34
chr8	53745293	53746049	757	261	17	30.65	4.93	51.07
chr8	53940986	53941871	886	272	19	31.76	4.52	49.79
chr8	53943418	53945111	1694	442	36	48.97	5.34	50.38
chr8	54487951	54488852	902	548	21	39.4	4.52	46.96
chr8	54755312	54757021	1710	755	43	35.51	4.46	47.24
chr8	54877489	54880915	3427	1267	69	53.02	4.41	50.9
chr8	55103810	55105433	1624	1335	30	30.48	3.88	51.3
chr8	55448387	55449296	910	526	25	53.04	7.39	51.07
chr8	55851176	55851908	733	451	17	32.1	5.34	49.7
chr8	55935478	55936563	1086	536	23	33.24	6.57	49.01
chr8	55959067	55959926	860	282	20	37.57	4.93	45.96
chr8	56018276	56019174	899	440	19	31.05	4.52	50.69
chr8	56267908	56268860	953	413	21	36.34	5.34	47.04
chr8	56269700	56270735	1036	600	21	31.88	5.75	49.76
chr8	56294626	56295533	908	621	22	39.03	4.93	46.21
chr8	56428038	56428938	901	381	20	35.1	4.11	47.35
chr8	56450482	56451511	1030	605	23	36.18	5.75	46.84
chr8	56489711	56490686	976	614	22	35.04	4.52	47.48
chr8	56553386	56554595	1210	787	25	34.33	6.52	47.77
chr8	56638057	56638808	752	367	18	35.4	5.34	47.5
chr8	57866639	57868060	1422	813	35	31.01	4.28	50.5
chr8	57924505	57925145	641	266	16	30.18	4.95	51.7
chr8	58589140	58590440	1301	759	28	41.81	6.98	46.93
chr8	58593976	58595090	1115	687	23	31.81	4.93	49.81
chr8	58728632	58729514	883	416	20	36.16	4.11	46.96
chr8	58957507	58958339	833	212	19	34.81	4.52	47.51
chr8	59155352	59156249	898	267	19	31.11	5.75	50.64
chr8	59173136	59174006	871	316	19	32.59	4.93	49.42
chr8	59174624	59175387	764	533	17	30.24	4.11	51.77
chr8	59448142	59449439	1298	642	28	37.59	5	45.83
chr8	59492904	59494438	1535	737	41	63.05	5.24	52.97
chr8	59555026	59555889	864	581	21	32.92	3.84	49.32
chr8	59709467	59711223	1757	1332	38	53.51	4.52	52.01
chr8	59719872	59721968	2097	1036	53	39.5	3.42	47.06
chr8	59840286	59842176	1891	539	39	38.84	5.32	46.24
chr8	60059166	60061521	2356	1077	57	48.61	4.76	49.9

chr8	60152796	60154652	1857	517	35	33.25	5	48.94
chr8	60315670	60316896	1227	579	26	37.77	5.34	46.65
chr8	60446804	60448794	1991	541	43	32.12	4.05	49.72
chr8	60451643	60453153	1511	523	34	46.26	5.06	48.69
chr8	60518767	60519677	911	541	19	30.42	4.93	51.31
chr8	60654575	60655226	652	203	16	32.74	4.52	49.34
chr8	60736998	60738553	1556	536	30	40.64	4.93	46.7
chr8	60876217	60877887	1671	590	35	30.42	3.66	51.39
chr8	61451161	61452217	1057	629	23	34.73	5.34	47.65
chr8	61500813	61501913	1101	427	26	39.79	5.33	46.66
chr8	62014964	62016592	1629	1192	41	63.35	6.69	54.98
chr8	62358923	62359766	844	315	21	40.11	5.06	46.59
chr8	62509584	62510592	1009	720	25	32.48	6.59	49.47
chr8	62644412	62646105	1694	1026	31	34.14	4.48	48
chr8	62713500	62714956	1457	887	32	49.54	4.11	51.22
chr8	62899921	62900938	1018	531	23	36.42	5.71	47.16
chr8	62919584	62920474	891	492	21	30.28	5.48	51.66
chr8	62990245	62991178	934	652	20	33.24	5.34	48.96
chr8	63299876	63300696	821	322	18	31.22	5.34	50.51
chr8	63524417	63526057	1641	1074	31	36.84	4.93	46.84
chr8	63676103	63676998	896	280	19	31.21	4.93	50.51
chr8	63901499	63902553	1055	769	21	30.94	4.52	50.6
chr8	64779341	64780626	1286	552	28	42.61	6.16	47.35
chr8	64988392	64989388	997	715	22	33.9	4.93	48.58
chr8	65294522	65296000	1479	669	35	50.07	6.09	51.79
chr8	65363788	65365823	2036	1364	39	39.18	5.42	46.26
chr8	65427757	65428864	1108	369	25	40.11	4.52	46.61
chr8	65881939	65882990	1052	466	24	39.1	4.93	46.3
chr8	66139068	66139900	833	415	20	39.29	6.16	46.52
chr8	66385894	66386889	996	647	27	50.92	6.09	51.83
chr8	66510731	66512333	1603	408	45	90	7.8	40.62
chr8	66626642	66627829	1188	435	32	66.85	6.98	55.33
chr8	66782453	66783626	1174	579	26	40.57	5.75	46.82
chr8	66847906	66849372	1467	686	31	45	6.57	48.99
chr8	67170050	67170853	804	275	18	32.2	6.16	49.96
chr8	67266074	67267604	1531	526	31	38.74	4.72	46.17
chr8	67352413	67353338	926	486	20	33.68	5.34	48.64
chr8	67378608	67379723	1116	658	25	35.03	5.33	47.48
chr8	67882039	67882707	669	236	20	41.35	5.82	46.94
chr8	67968903	67970146	1244	802	29	45.2	5.06	49.18
chr8	68138636	68139706	1071	598	26	35.56	5.19	47.18
chr8	68328266	68329025	760	233	20	30.13	4.4	51.64
chr8	68444478	68445274	797	363	20	30.58	4.32	51.19
chr8	68798198	68799262	1065	610	25	42.13	6.93	46.86
chr8	68906736	68908658	1923	607	38	45.53	5.34	50.04
chr8	68976637	68978168	1532	1089	36	49.14	5.21	50.61
chr8	68993952	68994792	841	577	18	30.11	4.93	51.58
chr8	69101242	69101996	755	505	17	30.77	4.93	50.95
chr8	70102735	70103311	577	288	16	37.66	6.57	46.06
chr8	71249363	71250120	758	468	18	31.38	4.95	50.24
chr8	71963528	71964821	1294	628	31	54.86	6.57	54
chr8	72669177	72670000	824	349	20	39.89	5.75	46.62

chr8	73474742	73475666	925	234	21	33.82	4.19	48.79
chr8	74719177	74720512	1336	859	34	38.56	4.36	46.26
chr8	74737529	74738495	967	383	21	31.49	5.71	49.89
chr8	75054654	75055471	818	441	21	43.92	6.04	47.69
chr8	75784736	75785998	1263	797	26	35.52	4.89	47.28
chr8	76314932	76315663	732	412	18	33.02	4.95	49.13
chr8	76597347	76598255	909	634	22	38.97	4.52	46.04
chr8	77174455	77176171	1717	1139	34	40.52	5.34	46.96
chr8	77243064	77244404	1341	708	27	35.99	6.16	47.07
chr8	77321577	77323343	1767	1090	44	73.89	6.16	57.83
chr8	77467460	77468144	685	413	16	30.61	5.34	51.15
chr8	77485420	77486285	866	237	23	41.81	4.57	46.95
chr8	77498148	77499126	979	239	21	34.88	4.93	47.64
chr8	77519430	77520629	1200	506	25	35.26	5.34	47.36
chr8	78145539	78146526	988	283	23	38.56	4.52	46.19
chr8	78155235	78156145	911	283	20	34.53	5.34	47.68
chr8	78256179	78257237	1059	599	24	38.71	5.75	46.24
chr8	78501638	78502430	793	504	18	32.85	5.75	49.28
chr8	78593815	78594595	781	416	21	47.83	6.98	49.34
chr8	78739988	78740838	851	291	19	33.74	4.93	48.63
chr8	78942783	78943722	940	455	20	32.91	4.11	49.24
chr8	79188613	79189483	871	622	19	32.59	6.16	49.42
chr8	79409298	79410270	973	486	21	31.16	4.95	50.55
chr8	79527358	79528577	1220	446	24	30.62	5.75	51.18
chr8	79552491	79553365	875	592	21	31.21	4.11	50.56
chr8	79576386	79579142	2757	586	65	30.79	2.75	51
chr8	79746639	79748140	1502	973	32	31.68	3.66	49.83
chr8	79983210	79983939	730	381	17	32.28	5.34	50.02
chr8	80186643	80187387	745	344	18	35.86	4.93	47
chr8	80375423	80376293	871	385	19	32.59	4.52	49.42
chr8	80497790	80499354	1565	959	32	43.93	4.52	47.66
chr8	80558282	80559162	881	375	25	41.85	6.04	47.12
chr8	81303589	81304468	880	290	22	40.81	6.57	46.37
chr8	81358460	81359237	778	286	18	33.76	5.34	48.7
chr8	81797359	81798234	876	279	19	32.31	5.34	50.09
chr8	82183712	82184546	835	263	18	30.44	4.93	51.32
chr8	82468715	82469668	954	701	21	36.29	4.93	46.94
chr8	82730551	82732286	1736	575	33	31.03	4.95	50.49
chr8	82919007	82919859	853	335	20	38.01	4.93	46.47
chr8	83197575	83198263	689	428	16	30.36	3.7	51.66
chr8	83209079	83211014	1936	610	45	53.12	6.06	51.42
chr8	83213615	83215579	1965	506	43	32.47	4.21	49.48
chr8	83286686	83287569	884	575	19	31.87	5.75	49.75
chr8	83310469	83311595	1127	793	31	66.51	5.75	55.48
chr8	83481569	83482771	1203	641	25	35.11	5.75	47.43
chr8	83600085	83601331	1247	524	29	30.08	5.29	51.53
chr8	83719214	83719997	784	530	18	31.39	4.72	50.21
chr8	84015702	84016519	818	286	18	31.39	4.11	50.18
chr8	84057856	84059121	1266	773	27	39.68	4.93	46.53
chr8	84086414	84087342	929	706	20	33.51	4.11	48.66
chr8	84090163	84091107	945	700	20	32.64	4.52	49.32
chr8	84102752	84103414	663	373	16	32.01	6.16	49.76



chr8	84117910	84118804	895	636	19	31.27	6.57	50.46
chr8	84140001	84140737	737	222	19	41.17	4.11	46.48
chr8	84424384	84426906	2523	1324	50	30.29	3.74	51.67
chr8	84441724	84442863	1140	693	24	34.4	5.34	47.75
chr8	84518763	84519835	1073	618	24	37.93	5.34	46.54
chr8	84595657	84596662	1006	638	23	37.53	5.75	45.96
chr8	84847692	84849207	1516	904	37	55.98	5.33	53.78
chr8	85054450	85055731	1282	784	29	46.94	4.52	47.7
chr8	85122159	85122808	650	282	16	32.87	6.16	49.29
chr8	85230448	85231591	1144	548	23	30.45	4.93	51.27
chr8	85424730	85425546	817	287	18	31.1	5.71	50.63
chr8	85482114	85483060	947	253	21	36.69	4.52	46.9
chr8	85658914	85660057	1144	398	28	31.57	4.94	49.96
chr8	85679804	85680697	894	663	20	35.51	4.52	47.23
chr8	85727125	85728827	1703	1225	33	41.14	4.93	46.4
chr8	86042966	86044867	1902	1259	44	31.49	5.14	49.92
chr8	86238484	86239647	1164	655	24	33.22	6.16	49.13
chr8	86385315	86386640	1326	759	27	36.7	6.98	47
chr8	86468419	86469557	1139	540	25	38.41	4.93	46.35
chr8	87022023	87023318	1296	533	27	33.36	5.71	48.68
chr8	87273523	87274516	994	595	20	30.11	4.11	51.59
chr8	87282059	87283046	988	643	21	30.95	3.85	50.52
chr8	87312425	87313363	939	694	22	37.16	4.93	46.85
chr8	87324432	87325778	1347	744	32	49.7	6.09	51.48
chr8	87510477	87511902	1426	617	34	55.51	5.34	54.01
chr8	87754931	87755767	837	552	18	30.33	4.93	51.59
chr8	87944713	87945858	1146	859	23	30.35	5.34	51.6
chr8	88079574	88080294	721	430	19	32.95	5.14	49.32
chr8	88215209	88216593	1385	737	31	49.43	4.52	51.85
chr8	88250855	88251475	621	336	17	39.9	6.57	46.57
chr8	88291179	88292105	927	635	20	33.62	5.34	48.71
chr8	88537044	88537950	907	382	19	30.63	4.52	51.2
chr8	88923759	88924567	809	527	18	31.91	4.93	49.82
chr8	88953921	88954871	951	476	24	45.32	6.98	49.35
chr8	89112005	89113167	1163	675	25	37.14	6.16	46.91
chr8	89181481	89182647	1167	510	30	44.57	6.85	48.88
chr8	89185119	89185886	768	369	17	30.01	4.11	51.49
chr8	89416513	89418004	1492	324	31	43.73	4.52	47.83
chr8	89719769	89720560	792	412	19	37.38	5.34	46.63
chr8	90282690	90284290	1601	228	30	30.14	3.81	51.66
chr8	90737593	90739257	1665	854	44	30.88	3.72	50.82
chr8	90830945	90832081	1137	439	26	31.39	4.45	50.22
chr8	90977755	90978569	815	256	20	36.36	5.33	47.16
chr8	91030331	91031100	770	267	21	36.98	5.04	46.95
chr8	91681136	91682462	1327	504	29	43.9	6.12	47.73
chr8	91797602	91798816	1215	643	24	30.84	6.57	50.89
chr8	92234596	92235850	1255	731	27	35.35	5.71	47.44
chr8	93166328	93167270	943	538	20	32.75	5.75	49.37
chr8	93627973	93628526	554	277	15	37.66	6.16	46.06
chr8	93887799	93888885	1087	482	23	33.19	5.34	49.07
chr8	94530730	94531587	858	280	20	37.69	5.75	46.5
chr8	94721295	94722022	728	263	18	33.82	5.39	48.84

chr8	94797806	94798701	896	273	20	33.78	4.38	48.69
chr8	95422063	95425639	3577	2851	83	50.08	4.14	51.85
chr8	95586279	95587091	813	269	20	40.63	4.93	46.74
chr8	96000296	96001923	1628	673	42	34.87	4.21	47.59
chr8	96167203	96169491	2289	1717	58	30.34	4.25	51.62
chr8	96290661	96291548	888	534	19	31.65	4.52	49.86
chr8	96778380	96779405	1026	436	24	40.61	6.98	46.71
chr8	96865306	96866653	1348	616	28	39.41	6.16	47.05
chr8	97065899	97066662	764	374	18	31.01	4.95	50.49
chr8	97089214	97090523	1310	493	27	36.24	4.43	46.94
chr8	97365922	97366954	1033	298	25	33.39	4.11	48.72
chr8	97830681	97832137	1457	605	41	58.51	6.66	53.96
chr8	98086350	98087985	1636	669	37	40.41	3.77	46.81
chr8	98316500	98317170	671	461	16	31.49	5.75	49.84
chr8	98414084	98415120	1037	755	25	39.48	4.19	47.11
chr8	99496193	99497021	829	286	20	30.09	4.11	51.54
chr8	100087903	100089295	1393	640	34	37.51	4.16	46.07
chr8	100145502	100148198	2697	1660	80	87.85	5.29	45.71
chr8	100186466	100187768	1303	802	30	30.47	4.98	51.24
chr8	100306697	100307588	892	653	25	54.42	5.34	53.91
chr8	100344861	100345988	1128	419	26	41.15	6.77	46.37
chr8	100357639	100358644	1006	541	21	31.19	4.72	50.52
chr8	100494100	100496122	2023	652	44	30.67	4.81	51.07
chr8	100594969	100596225	1257	468	30	32.78	4.05	49.46
chr8	100646461	100648073	1613	464	37	50.44	4.57	51.88
chr8	100682825	100684250	1426	976	30	36.27	5.21	46.92
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chr8	100905333	100907033	1701	749	40	43.07	3.91	47.14
chr8	100921198	100922427	1230	436	24	30.17	5.34	51.65
chr8	101043683	101044839	1157	586	25	37.45	6.16	46.31
chr8	101119263	101120168	906	339	22	39.15	6.16	46.25
chr8	101321079	101323052	1974	1049	45	31.1	3.42	50.63
chr8	101331906	101332794	889	652	21	35.96	4.57	47
chr8	101873006	101874158	1153	282	28	47.3	4.33	48.14
chr8	102381992	102382807	816	287	20	40.42	6.98	46.89
chr8	102447076	102448210	1135	393	25	38.62	6.57	46.09
chr8	102576103	102576799	697	436	17	34.4	5.34	47.76
chr8	102857404	102858271	868	428	21	41.59	5.75	47.18
chr8	103047477	103048222	746	461	21	39.86	4.11	46.61
chr8	103217195	103218487	1293	502	27	38.31	4.93	46.39
chr8	103568652	103569492	841	555	18	30.11	4.52	51.58
chr8	103881894	103882847	954	500	20	32.16	4.52	49.86
chr8	104056788	104058118	1331	581	30	30.29	4.12	51.68
chr8	104393196	104394155	960	242	21	35.94	4.52	47.02
chr8	104418892	104420452	1561	818	40	56.34	5.19	53.9
chr8	104548310	104549273	964	681	20	31.63	4.93	49.87
chr8	106553850	106554746	897	636	23	33.76	4.11	48.69
chr8	107237784	107238542	759	500	19	35.65	4.19	47.28
chr8	107325102	107325953	852	590	20	38.07	4.93	46.37
chr8	107513289	107513910	622	275	15	30.07	5.34	51.52
chr8	108501687	108502710	1024	256	21	32.49	4.11	49.45
chr8	108505873	108507609	1737	723	36	46.24	5.3	48.69

chr8	108582561	108583307	747	380	17	31.25	4.93	50.49
chr8	108732944	108734594	1651	1107	34	42.04	4.03	46.97
chr8	108760775	108762192	1418	652	30	38.17	5.71	46.24
chr8	108960316	108961410	1095	514	23	32.79	4.52	49.41
chr8	108969212	108970187	976	565	21	35.04	5.34	47.48
chr8	109000231	109001027	797	412	25	56.95	7.23	52.84
chr8	109208648	109209586	939	678	21	37.16	5.34	46.85
chr8	109547770	109548935	1166	522	27	33.38	4.79	48.69
chr8	109674386	109675487	1102	539	26	44.72	5.75	48.83
chr8	110039815	110041168	1354	707	26	31.37	6.93	50.25
chr8	110130517	110131410	894	331	20	31.58	4.95	49.99
chr8	110148032	110148771	740	400	18	32.51	4.19	49.41
chr8	110389742	110390723	982	582	21	33.68	5.24	48.63
chr8	110706523	110707418	896	274	23	44.37	5.75	48.49
chr8	110840899	110841839	941	556	21	37.04	6.16	46.99
chr8	110848907	110850313	1407	566	31	42.41	4.19	47.12
chr8	110884724	110885751	1028	503	21	32.28	5.34	50.03
chr8	111102660	111103904	1245	493	25	33.1	6.16	49.16
chr8	111319950	111320951	1002	693	24	42.06	6.57	47.01
chr8	111350080	111351384	1305	557	31	54.18	7.8	53.3
chr8	111490764	111491937	1174	445	24	32.74	5.75	49.37
chr8	111606031	111606869	839	582	19	34.45	6.16	47.73
chr8	111721770	111722447	678	407	19	45.71	5.34	49.85
chr8	112067900	112069135	1236	592	28	45.38	5.75	49.6
chr8	112575066	112575821	756	224	17	30.71	4.11	51.03
chr8	112652262	112653100	839	576	18	30.22	4.52	51.69
chr8	112790242	112791244	1003	450	21	33.58	4.93	48.66
chr8	112802815	112803672	858	417	21	35.97	5.88	47.05
chr8	112904509	112905387	879	599	20	36.4	4.52	47.15
chr8	113598738	113600044	1307	601	25	30.34	8.22	51.6
chr8	113932486	113934067	1582	1017	35	44.55	4.95	48.76
chr8	114437961	114438887	927	641	22	30.87	4.69	50.8
chr8	114834721	114835396	676	425	16	31.17	5.34	50.55
chr8	114913788	114915091	1304	620	28	41.66	6.16	47.17
chr8	114916946	114917908	963	704	20	31.69	4.52	49.8
chr8	114919448	114920215	768	460	17	30.01	4.93	51.49
chr8	115195105	115196343	1239	672	27	41.11	6.57	46.35
chr8	115245796	115246600	805	503	18	32.14	4.11	49.83
chr8	115839883	115840697	815	538	21	45.28	6.16	49.18
chr8	115923380	115924295	916	290	19	30.15	4.11	51.66
chr8	116173803	116174848	1046	531	23	35.32	5.75	47.4
chr8	116251991	116252827	837	427	19	34.57	5.75	47.74
chr8	116346857	116347936	1080	665	23	33.55	6.57	48.64
chr8	116410214	116410862	649	268	16	32.94	6.16	49.39
chr8	116906149	116907673	1525	845	32	42.66	4.72	47.36
chr8	117150973	117151865	893	289	20	35.57	4.11	47.15
chr8	117517841	117519163	1323	605	28	39.37	6.04	46.83
chr8	117709949	117711263	1315	645	34	36.46	4.17	47.1
chr8	118075656	118077181	1526	272	30	36.25	5.18	46.92
chr8	118112015	118112901	887	231	21	39.93	4.48	46.68
chr8	118433937	118434854	918	260	20	34.13	4.52	48.07
chr8	118684125	118685100	976	532	20	31.01	6.16	50.49

chr8	118745362	118746193	832	541	18	30.6	4.52	51.25
chr8	118885557	118886411	855	593	19	33.51	4.93	48.65
chr8	118983858	118984814	957	432	24	44.93	6.16	48.87
chr8	119145624	119146674	1051	759	24	39.16	6.16	46.17
chr8	119781351	119783018	1668	417	37	47.54	4.95	48.72
chr8	119846041	119847143	1103	614	25	40.39	4.93	46.81
chr8	120077317	120078253	937	591	22	37.27	5.75	46.57
chr8	120347173	120348212	1040	681	22	31.68	6.57	49.85
chr8	120577513	120578541	1029	635	21	32.23	4.93	50.02
chr8	120786912	120789257	2346	1534	59	55.18	5.96	52.95
chr8	121186034	121186835	802	262	18	32.32	4.52	50.01
chr8	121536318	121537733	1416	488	31	35.86	3.84	46.98
chr8	122055380	122056319	940	421	21	37.1	4.11	46.88
chr8	122378351	122379179	829	336	18	30.77	5.34	50.95
chr8	122624155	122625219	1065	779	22	30.45	5.34	51.29
chr8	122773027	122773780	754	318	17	30.83	4.93	50.9
chr8	123351781	123352394	614	247	17	31.89	5.14	49.85
chr8	123427266	123428229	964	291	20	31.63	4.11	49.87
chr8	123711586	123712622	1037	764	24	31.23	4.24	50.52
chr8	123759665	123761060	1396	582	28	30.88	4.09	50.77
chr8	123912639	123914147	1509	581	31	42.89	4.52	47.37
chr8	123944449	123946054	1606	594	30	34.9	5.34	47.6
chr8	124187533	124189605	2073	1221	48	72.68	6.16	57.78
chr8	124273059	124275172	2114	1578	47	47.06	5.14	47.55
chr8	124847856	124848549	694	402	16	30.06	5.75	51.46
chr8	125363045	125364684	1640	484	34	38.23	4.95	46.3
chr8	125390137	125391275	1139	586	26	35.61	5.16	47.32
chr8	125441972	125442760	789	403	22	31.63	4.98	49.91
chr8	125463352	125465030	1679	1218	37	37.58	3.73	45.93
chr8	125595662	125596656	995	472	23	38.16	6.57	46.31
chr8	125698411	125699564	1154	864	28	43.29	5.21	48.05
chr8	125807750	125808629	880	591	20	36.34	4.52	47.09
chr8	126021976	126025235	3260	2694	77	42	3.95	47.17
chr8	126296582	126297341	760	286	17	30.48	4.52	51.27
chr8	126501835	126503230	1396	688	33	53.01	8.63	50.82
chr8	126562797	126564253	1457	746	37	35.23	4.85	47.25
chr8	126752741	126754174	1434	660	33	36.94	5.48	46.89
chr8	126792152	126793139	988	713	23	37.45	4.43	46.36
chr8	126807023	126807630	608	340	15	31	4.93	50.54
chr8	126872642	126873701	1060	546	22	30.69	4.93	51.01
chr8	126923576	126924429	854	574	19	32.61	5.64	49.44
chr8	126955443	126956319	877	278	19	32.26	4.11	49.99
chr8	127207659	127208464	806	431	18	32.08	6.16	49.79
chr8	127957755	127958570	816	290	20	40.42	5.34	46.89
chr8	127999300	128000452	1153	411	24	33.76	4.52	48.7
chr8	128024731	128025649	919	382	22	38.35	6.16	46.36
chr8	128292807	128293473	667	338	16	31.75	5.75	49.79
chr8	128790467	128791817	1351	735	27	33.6	6.77	48.74
chr8	129155047	129155876	830	573	18	30.37	3.67	51.63
chr8	129240965	129241828	864	289	19	30.37	4.28	51.63
chr8	129595702	129597195	1494	327	31	30.91	3.08	50.59
chr8	129613415	129614682	1268	692	31	55.91	8.15	53.05

chr8	129904385	129905367	983	345	23	34.52	5.71	47.71
chr8	130108435	130109560	1126	483	26	43.29	5.34	48
chr8	130210862	130211977	1116	592	24	30.7	5.65	50.98
chr8	130263485	130265095	1611	1102	33	33.78	5.15	48.67
chr8	130280294	130281974	1681	1072	39	53.42	4.14	51.72
chr8	130837379	130838378	1000	460	23	37.87	5.75	46.66
chr8	132461862	132462614	753	267	18	35.34	4.52	47.46
chr8	132655825	132656778	954	585	20	32.16	6.16	49.86
chr8	133649850	133650822	973	358	20	31.17	4.52	50.55
chr8	133677990	133678977	988	584	23	33.63	5.27	48.75
chr8	133728878	133730520	1643	1067	33	34.77	4.95	47.59
chr8	134037805	134038791	987	542	22	31	5.77	50.5
chr8	135058519	135059579	1061	451	24	32.29	4.42	50.1
chr8	135079311	135079940	630	277	17	39.2	5.34	46.26
chr8	135284053	135284875	823	494	19	35.42	4.93	47.52
chr8	136292009	136293047	1039	288	24	39.85	5.75	46.64
chr8	136732421	136733038	618	350	15	30.33	5.34	51.64
chr8	138205046	138205977	932	287	20	33.35	4.11	48.67
chr8	139214387	139215505	1119	647	25	39.5	6.16	47
chr8	140208669	140209373	705	275	19	34.06	5.14	48.45
chr8	140633182	140634079	898	532	21	39.65	4.93	46.42
chr8	141140957	141141681	725	401	17	32.59	4.93	49.4
chr8	141411026	141412472	1447	722	36	61.23	8.06	55.64
chr8	141441529	141442496	968	560	20	31.43	5.34	50.12
chr8	141863694	141864804	1111	526	24	34.77	4.43	47.58
chr8	141915856	141916605	750	424	20	45.16	6.98	48.97
chr8	144623370	144624730	1361	969	32	38.67	4	46.09
chr8	146017164	146018964	1801	447	48	40.27	5.53	46.85
chr9	220693	221527	835	280	18	30.44	4.11	51.32
chr9	562814	563819	1006	353	29	33.56	4.51	48.59
chr9	815760	816643	884	638	19	31.87	4.11	49.75
chr9	1278609	1279677	1069	783	24	38.15	4.93	46.25
chr9	1426689	1427586	898	242	22	39.65	5.34	46.42
chr9	1467453	1468398	946	489	29	71.04	9.45	53.7
chr9	1480642	1481486	845	557	20	34.46	5.33	47.79
chr9	1796893	1797884	992	518	20	30.21	4.52	51.73
chr9	2697630	2698502	873	262	19	32.48	4.52	49.44
chr9	3091964	3093232	1269	733	26	35.69	7.39	47.21
chr9	3348316	3349272	957	263	21	32.03	4.95	49.77
chr9	3490136	3491336	1201	617	30	47.84	4.42	49.24
chr9	3732081	3732835	755	469	20	44.78	4.52	48.92
chr9	4110440	4111730	1291	583	29	46.43	4.93	48.43
chr9	4327323	4327936	614	327	16	35.39	5.34	47.62
chr9	4679015	4680427	1413	919	35	33.84	3.54	48.75
chr9	4703710	4704832	1123	542	28	31.62	4.24	49.94
chr9	4796373	4798001	1629	917	40	35.55	4	47.18
chr9	5072206	5073262	1057	553	22	30.84	5.34	50.83
chr9	5548841	5550700	1860	629	42	48.96	4.24	50.27
chr9	6025555	6027302	1748	268	36	38.45	3.72	46.45
chr9	6182408	6183218	811	354	18	31.79	6.57	49.76
chr9	6231012	6232696	1685	502	36	49.42	5.75	51.73
chr9	6723302	6724552	1251	485	29	38.7	4.99	46.21

chr9	8072807	8073679	873	261	20	36.77	6.98	46.92
chr9	8218598	8219401	804	273	18	32.2	4.93	49.96
chr9	8616086	8617196	1111	523	28	53.14	6.98	51.68
chr9	9441833	9442840	1008	304	46	59.28	7.8	54.25
chr9	9872098	9872814	717	455	17	33.1	4.93	49.21
chr9	10952365	10953956	1592	537	32	42.63	3.7	47.34
chr9	11057429	11058671	1243	667	25	33.2	5.75	49.09
chr9	11176078	11177127	1050	416	23	35.1	4.93	47.39
chr9	11193997	11194837	841	234	18	30.11	4.52	51.58
chr9	11252280	11253247	968	595	20	31.43	4.93	50.12
chr9	11582238	11583126	889	605	20	35.81	4.52	47.08
chr9	11908134	11909024	891	630	19	31.48	5.34	49.85
chr9	11975022	11976436	1415	876	32	51.9	4.93	51.04
chr9	12224024	12225086	1063	628	24	34.03	4.95	48.6
chr9	12448397	12449075	679	283	17	35.62	4.93	47.31
chr9	12486737	12487780	1044	466	23	35.42	5.34	47.49
chr9	12972462	12973426	965	675	24	39.7	6.09	46.54
chr9	13088990	13089853	864	284	20	37.32	5.75	46.67
chr9	13131654	13132581	928	266	21	37.81	5.34	46.63
chr9	13548909	13549773	865	581	19	32.93	4.93	49.39
chr9	13702332	13703235	904	486	19	30.79	5.75	50.91
chr9	13735919	13736679	761	439	22	49.4	5.75	51.49
chr9	13982694	13983819	1126	640	25	39.11	6.98	46.3
chr9	14081311	14082151	841	495	18	30.11	4.93	51.58
chr9	14094152	14094875	724	283	17	32.66	5.34	49.29
chr9	14218413	14219163	751	477	17	31.01	4.52	50.5
chr9	14489210	14490288	1079	449	24	37.6	4.93	45.8
chr9	14616026	14617545	1520	887	37	43.2	4.28	47.52
chr9	14745031	14746032	1002	258	21	33.63	4.11	48.79
chr9	15132966	15133868	903	428	20	33.98	4.83	48.57
chr9	15518060	15519357	1298	584	27	38.06	5.34	46.43
chr9	15551598	15553420	1823	543	42	39.41	3.74	47.02
chr9	16362804	16363785	982	642	24	32.56	4.45	49.35
chr9	16949088	16949834	747	396	17	30.39	4.83	51.62
chr9	17013881	17015023	1143	609	23	30.49	4.52	51.27
chr9	17242739	17243780	1042	623	21	30.58	5.24	51.21
chr9	17307985	17309596	1612	866	44	45.81	4.28	49.85
chr9	17412993	17413929	937	262	21	36.21	4.83	46.94
chr9	18126600	18127611	1012	587	24	40.28	5.64	46.87
chr9	19232038	19233577	1540	866	37	34.92	4.21	47.6
chr9	19307701	19308587	887	286	21	33.74	4.01	48.65
chr9	19342212	19343174	963	281	30	45.29	4.57	49.35
chr9	19628638	19629660	1023	401	22	32.54	6.57	49.37
chr9	19870609	19871825	1217	520	28	41.15	5.71	46.33
chr9	20571034	20571818	785	262	21	37.01	3.77	46.94
chr9	20591696	20592519	824	579	18	31.05	4.52	50.62
chr9	20937410	20938411	1002	378	23	33.46	6.09	48.58
chr9	21140551	21141489	939	659	23	41.55	4.93	47.17
chr9	21432046	21433218	1173	537	24	32.79	5.75	49.41
chr9	21727476	21728011	536	268	15	37.66	6.16	46.06
chr9	21854777	21856394	1618	1327	31	32.59	3.81	49.42
chr9	22028877	22030713	1837	599	38	39.35	4.74	46.8

chr9	22097319	22098957	1639	1302	36	45.33	6.09	49.42
chr9	22234452	22235699	1248	702	27	34.33	5.96	47.78
chr9	22272906	22273896	991	747	20	30.26	4.11	51.67
chr9	22301286	22302114	829	282	18	30.77	3.7	50.95
chr9	22412697	22413581	885	611	24	49.95	5.34	51.7
chr9	22442455	22443186	732	336	17	32.16	5.75	49.88
chr9	22939560	22940421	862	596	21	41.99	5.75	47.06
chr9	22968344	22970207	1864	1505	39	59.75	4.93	56.6
chr9	22975290	22976601	1312	545	25	30.13	5.75	51.65
chr9	23024447	23025629	1183	612	24	32.31	6.16	50.07
chr9	23187545	23188562	1018	762	26	32.28	4.98	50.03
chr9	23696565	23697456	892	279	20	35.63	4.93	47.33
chr9	24453964	24454967	1004	269	21	33.53	4.52	48.64
chr9	24518021	24519677	1657	969	40	41.33	3.42	46.8
chr9	25153604	25154322	719	248	18	37.62	4.52	45.78
chr9	25711270	25712242	973	619	22	35.21	4.52	47.21
chr9	25737580	25738615	1036	435	21	31.88	5.75	49.76
chr9	25968253	25969215	963	450	22	31.13	4.52	50.63
chr9	26263692	26265863	2172	1507	41	34.1	5.05	48.13
chr9	26476146	26477110	965	683	22	34.62	4.83	47.77
chr9	26581186	26582462	1277	580	26	35.3	4.93	47.41
chr9	26623838	26624642	805	237	18	32.14	4.52	49.83
chr9	26875287	26876136	850	278	19	33.8	4.11	48.83
chr9	26926662	26927981	1320	576	36	46.64	4.67	47.33
chr9	27064981	27065808	828	450	19	34.14	5.24	48.01
chr9	27402652	27403396	745	454	18	35.86	4.93	47
chr9	27562760	27565351	2592	1977	63	32.66	3.91	49.31
chr9	28586611	28587401	791	518	22	31.5	4.67	49.85
chr9	28713114	28713990	877	369	19	32.26	4.93	49.99
chr9	29092335	29093236	902	262	20	35.04	4.93	47.43
chr9	29165626	29166425	800	512	18	32.44	6.16	49.55
chr9	29224266	29225101	836	522	20	39.1	4.93	46.36
chr9	30326124	30327327	1204	633	24	31.34	6.16	50.18
chr9	30357483	30358459	977	534	20	30.96	4.52	50.47
chr9	30708188	30709244	1057	283	21	30.84	4.52	50.83
chr9	30745922	30747216	1295	701	25	30.86	5.75	50.94
chr9	31145186	31146350	1165	607	25	37.03	4.93	46.99
chr9	31636778	31637460	683	283	17	35.35	4.11	47.45
chr9	32795363	32796223	861	577	20	37.51	6.16	46.02
chr9	32967422	32969082	1661	628	32	39.47	4.11	47.03
chr9	33352134	33353705	1572	359	37	44.49	5.19	48.57
chr9	33522644	33523644	1001	524	21	33.69	5.75	48.59
chr9	33685179	33686260	1082	792	26	45.95	5.34	49.57
chr9	33829607	33830391	785	408	20	42.58	6.57	47.14
chr9	33873840	33874948	1109	641	27	32.31	3.84	50.06
chr9	33984427	33985503	1077	501	24	32.06	4.84	49.82
chr9	34042140	34043009	870	600	20	32.96	4.95	49.28
chr9	34086646	34087894	1249	568	25	32.92	6.16	49.3
chr9	34171258	34172660	1403	762	29	40.51	8.22	46.93
chr9	34670852	34671810	959	495	20	31.9	4.11	49.83
chr9	35188973	35189834	862	277	20	35.19	4.33	47.16
chr9	35256163	35257140	978	728	21	34.93	4.52	47.58

chr9	35272306	35273263	958	352	21	36.06	6.16	46.97
chr9	35435963	35437214	1252	708	29	46.41	5.58	48.43
chr9	35649240	35650707	1468	1179	33	33.9	4.36	48.67
chr9	35770868	35772655	1788	1009	36	33.56	4.11	48.57
chr9	35940315	35941079	765	252	17	30.19	4.52	51.7
chr9	36024379	36025097	719	364	18	37.62	5.34	45.78
chr9	36097302	36098341	1040	484	23	35.64	4.52	47.28
chr9	36266856	36267611	756	501	17	30.71	5.75	51.03
chr9	36442304	36443805	1502	646	33	36.55	4.64	46.87
chr9	36454813	36455714	902	659	21	38.32	4.43	46.47
chr9	37207555	37209356	1802	935	51	65.06	5.76	53.89
chr9	38319324	38320323	1000	564	21	33.74	4.93	48.62
chr9	38531407	38532537	1131	532	30	58.71	5.58	52.38
chr9	40292968	40294337	1370	710	29	42.17	6.57	47.03
chr9	40547904	40548810	907	222	19	30.63	4.52	51.2
chr9	41918697	41919464	768	491	19	32.36	3.97	49.82
chr9	42507931	42508919	989	399	22	34.33	4.93	47.78
chr9	42949937	42951713	1777	989	50	33.8	4.11	48.85
chr9	43392160	43392913	754	393	18	35.28	4.93	47.34
chr9	43492461	43493115	655	327	16	32.54	4.93	49.34
chr9	43547073	43547985	913	632	19	30.31	4.93	51.54
chr9	44329344	44329859	516	258	15	42.93	6.16	47.38
chr9	44897401	44898427	1027	289	29	31.76	4.48	49.85
chr9	44958874	44960145	1272	696	28	43.37	4.52	47.92
chr9	45632440	45632981	542	271	18	34.36	5.14	47.84
chr9	45645414	45647429	2016	654	43	53.92	7.66	52.74
chr9	45670342	45671417	1076	280	23	33.75	4.52	48.7
chr9	46062645	46063589	945	264	23	30.94	4.11	50.61
chr9	46438022	46439333	1312	654	33	51.83	7.23	51.17
chr9	46564202	46564961	760	492	17	30.48	4.11	51.27
chr9	46899526	46901576	2051	735	50	57.21	5.65	53.3
chr9	47170894	47171677	784	317	21	38.2	5.24	46.41
chr9	65781186	65782091	906	449	22	34.93	6.09	47.64
chr9	66302852	66303757	906	589	20	32.04	6.62	49.77
chr9	66544469	66546217	1749	1469	31	33.59	3.98	48.73
chr9	66730290	66731195	906	625	19	30.68	4.52	51.01
chr9	66848322	66853860	5539	2530	184	31.14	3.67	50.67
chr9	66918609	66920488	1880	1146	50	70.76	5.14	54.13
chr9	67053553	67055006	1454	870	37	50.3	6.85	51.78
chr9	67227477	67228673	1197	705	33	31.3	6.32	50.34
chr9	67291999	67295006	3008	1247	92	37.78	3.18	46.67
chr9	67308864	67311806	2943	1627	73	33.75	4.69	48.69
chr9	68259480	68260511	1032	623	24	40.26	6.57	46.78
chr9	68993123	68995687	2565	641	55	31.29	3.37	50.33
chr9	69194805	69195683	879	273	23	40.28	5.65	46.89
chr9	69330800	69331962	1163	434	25	37.14	5.75	46.91
chr9	69719412	69720197	786	498	18	33.27	4.93	48.88
chr9	69858123	69859238	1116	296	29	43.82	4.79	47.93
chr9	70324121	70325002	882	465	19	31.98	4.52	49.78
chr9	70355954	70357316	1363	1138	31	50.69	4.52	51.52
chr9	70453223	70454540	1318	488	31	51.83	5.64	51.1
chr9	70638386	70640718	2333	1644	54	32.34	3.81	49.91



chr9	71113492	71114203	712	287	23	59.08	9.04	52.83
chr9	71311571	71312341	771	288	20	43.59	5.34	47.61
chr9	72013529	72014474	946	288	20	32.59	4.52	49.31
chr9	72167891	72168568	678	399	16	31.05	5.34	50.56
chr9	72747827	72748394	568	284	15	32.66	6.16	49.32
chr9	72876374	72878479	2106	363	50	50.2	4.16	51.25
chr9	72928906	72929865	960	356	23	40.24	7.8	46.69
chr9	73237667	73239062	1396	667	30	44.76	4.93	48.82
chr9	73576559	73577465	907	281	21	39.09	6.57	46.3
chr9	74695507	74696423	917	500	21	38.48	5.34	46.32
chr9	75167778	75169060	1283	811	30	51.15	6.98	51.79
chr9	76110593	76111532	940	277	20	32.91	4.52	49.24
chr9	76409060	76410407	1348	763	28	34.42	4.57	47.8
chr9	76552791	76553979	1189	727	24	32.03	5.34	49.79
chr9	76567157	76567888	732	269	17	32.16	6.57	49.88
chr9	76625484	76626344	861	572	19	33.16	4.93	49.11
chr9	77763625	77764399	775	345	20	43.3	6.57	48.08
chr9	78077331	78078339	1009	634	23	37.35	4.11	46.8
chr9	78334754	78335726	973	541	21	35.21	4.93	47.21
chr9	78639793	78641043	1251	562	28	35.74	4.69	47.15
chr9	79179026	79179881	856	582	19	33.45	4.93	48.63
chr9	79449556	79450521	966	679	20	31.53	4.11	49.91
chr9	79803754	79805263	1510	585	31	30.22	4.79	51.74
chr9	79941096	79943018	1923	1237	41	56.66	6.16	53.51
chr9	80103231	80103982	752	355	18	31.75	4.19	49.81
chr9	80706095	80707308	1214	709	25	34.58	5.34	47.7
chr9	81124745	81125622	878	266	20	32.49	4.95	49.46
chr9	81724104	81725158	1055	615	22	30.94	5.75	50.6
chr9	81739284	81740161	878	592	22	35.97	4.89	47.05
chr9	81966051	81967267	1217	604	26	38.28	4.93	46.29
chr9	82051025	82052370	1346	689	31	51.69	7.8	51.3
chr9	82257418	82258463	1046	509	22	30.99	5.3	50.49
chr9	83569573	83570138	566	283	15	37.66	6.16	46.06
chr9	83639948	83640739	792	271	18	32.91	6.16	49.22
chr9	84494456	84495262	807	203	19	36.42	5.34	47.16
chr9	85068948	85069704	757	492	17	30.65	4.93	51.07
chr9	86161409	86163320	1912	494	41	57.22	6.16	52.93
chr9	86188233	86189289	1057	489	26	47.53	5.34	48.68
chr9	86477365	86478664	1300	787	31	54.49	6.16	54.13
chr9	86570677	86572178	1502	657	40	35.64	4.48	47.27
chr9	86579842	86580984	1143	693	27	34.61	4.11	47.73
chr9	86706770	86707698	929	516	20	33.51	4.52	48.66
chr9	86771236	86772458	1223	665	28	40.82	4.57	46.35
chr9	86780031	86781098	1068	408	21	30.31	5.34	51.54
chr9	87337809	87339441	1633	718	42	67.56	5.59	54.55
chr9	87366681	87367678	998	364	23	37.98	5.75	46.41
chr9	87479810	87482548	2739	839	86	33.3	2.88	48.79
chr9	88271322	88272704	1383	877	31	38.23	3.53	46.29
chr9	88346514	88348082	1569	1002	36	42.79	4.24	47.4
chr9	88490416	88492046	1631	1447	31	37.27	4.11	46.55
chr9	88597995	88600223	2229	993	45	45.66	4.57	49.74
chr9	88629496	88632039	2544	2255	54	44.97	3.73	48.89

chr9	88857485	88858358	874	587	19	32.42	4.93	49.55
chr9	88963034	88964210	1177	826	33	48.93	5.6	50.43
chr9	90899674	90900412	739	510	17	31.73	4.93	49.74
chr9	91478180	91479145	966	691	20	31.53	6.16	49.91
chr9	91530353	91531461	1109	666	23	32.1	6.57	49.73
chr9	92217363	92218593	1231	575	28	45.67	6.57	49.85
chr9	93266136	93267952	1817	489	33	33.1	5.34	49.16
chr9	93413961	93415106	1146	596	26	42.14	5.75	46.93
chr9	93631538	93633361	1824	508	37	34.34	4.94	47.91
chr9	93691106	93692012	907	623	20	34.75	5.75	47.62
chr9	94016147	94016872	726	447	17	32.53	4.93	49.39
chr9	95017530	95018422	893	435	20	30	5.52	51.46
chr9	95297082	95298516	1435	939	32	50.76	5.75	51.6
chr9	95494830	95495752	923	392	22	33.94	4.57	48.66
chr9	95896454	95897291	838	599	19	34.51	5.34	47.68
chr9	96133590	96134381	792	508	18	32.91	5.75	49.22
chr9	96191003	96192288	1286	599	25	31.25	5.75	50.49
chr9	96768672	96769502	831	278	18	30.66	4.11	51.04
chr9	97053702	97054756	1055	553	22	30.94	5.34	50.6
chr9	97611278	97612193	916	240	24	47.72	8.22	49.11
chr9	97656488	97657163	676	284	16	31.17	4.93	50.55
chr9	98216685	98217434	750	279	17	30.21	5.64	51.7
chr9	98612574	98613618	1045	453	21	31.43	4.93	50.04
chr9	99100777	99101823	1047	445	21	30.94	5.3	50.54
chr9	99108762	99109954	1193	585	25	35.61	4.11	47.36
chr9	99120363	99121457	1095	804	24	31.15	4.09	50.63
chr9	99146858	99148187	1330	798	28	35.28	5.71	47.39
chr9	99512204	99513630	1427	616	31	33.95	5.14	48.65
chr9	99730892	99731978	1087	606	24	30.37	3.64	51.64
chr9	99801162	99801993	832	571	20	38.95	5.3	46.14
chr9	99939910	99940604	695	258	18	37.19	6.3	46.85
chr9	100175099	100176970	1872	996	48	43.43	4.25	47.91
chr9	100588975	100590269	1295	693	26	31.92	5.9	49.81
chr9	102122111	102122872	762	502	18	34.76	4.93	47.61
chr9	102367643	102368462	820	516	18	31.28	4.52	50.36
chr9	102612644	102613776	1133	377	24	34.75	6.57	47.62
chr9	102622622	102623341	720	262	19	42.42	5.34	47.21
chr9	103189813	103191963	2151	1563	40	37.23	5.39	46.7
chr9	103548837	103549724	888	261	20	35.47	4.89	47.43
chr9	104020019	104021558	1540	272	31	41.39	4.11	46.93
chr9	104440442	104441427	986	348	20	30.51	4.11	51.28
chr9	104486927	104488208	1282	741	30	51.21	6.57	51.46
chr9	105395777	105396752	976	382	21	35.04	6.57	47.48
chr9	105464863	105465841	979	425	21	34.88	4.93	47.64
chr9	105640420	105640980	561	280	15	37.66	6.16	46.06
chr9	105755951	105756855	905	640	21	39.22	4.52	46.37
chr9	106137805	106138546	742	461	17	31.55	4.93	49.94
chr9	106254905	106255576	672	320	16	31.43	4.93	50.09
chr9	106510431	106511280	850	593	19	33.8	4.93	48.83
chr9	106740726	106741657	932	382	20	33.35	5.75	48.67
chr9	107408498	107409394	897	616	19	31.16	4.52	50.56
chr9	107450721	107451509	789	258	18	33.09	4.52	49.16

chr9	107493634	107494462	829	270	18	30.77	5.34	50.95
chr9	107509529	107510961	1433	876	37	36.5	4	47.03
chr9	107552833	107553876	1044	563	21	31.48	4.93	49.97
chr9	107663174	107664091	918	284	19	30.05	4.11	51.47
chr9	107723259	107724159	901	627	20	35.1	4.11	47.35
chr9	107742603	107743449	847	406	20	34.34	6.47	47.88
chr9	107828664	107829656	993	595	20	30.16	5.75	51.68
chr9	107923206	107924163	958	270	20	31.95	6.98	49.8
chr9	108439633	108441084	1452	830	34	35.87	4.89	47.02
chr9	108462874	108464151	1278	799	30	32.89	5.39	49.35
chr9	108815952	108816766	815	542	18	31.56	5.34	49.92
chr9	108986419	108987289	871	261	19	32.59	4.52	49.42
chr9	109484719	109485697	979	691	20	30.86	4.93	50.91
chr9	109627685	109628426	742	261	17	31.55	4.52	49.94
chr9	110086664	110087468	805	519	20	40.76	6.93	46.54
chr9	110450086	110451305	1220	521	25	34.29	6.16	47.84
chr9	110690249	110691178	930	352	21	37.69	4.52	46.43
chr9	111096842	111097913	1072	538	22	30.12	6.57	51.63
chr9	111253040	111253943	904	456	19	30.79	5.34	50.91
chr9	111298744	111299863	1120	669	25	39.44	6.98	47.06
chr9	111388734	111389890	1157	511	27	45.74	6.57	49.92
chr9	111612998	111613657	660	273	18	41.97	6.98	47.12
chr9	112385139	112386239	1101	488	24	36.41	4.93	47.19
chr9	113289711	113290629	919	711	23	32.43	4.45	49.55
chr9	113297753	113298783	1031	405	21	32.13	4.52	49.78
chr9	113404549	113405418	870	248	19	31.14	5.18	50.63
chr9	113868431	113869753	1323	938	31	53.07	5.75	51.58
chr9	114181654	114183000	1347	789	31	36.55	6.04	46.88
chr9	114234684	114235715	1032	665	25	33.44	4.79	48.61
chr9	114392769	114393990	1222	510	26	33.35	5.71	48.68
chr9	114677973	114678657	685	278	17	32.21	5	49.94
chr9	114939339	114940176	838	344	18	30.27	5.34	51.68
chr9	115003226	115004601	1376	877	30	45.83	5.34	50
chr9	115235596	115236258	663	279	16	32.01	5.34	49.76
chr9	115324381	115327094	2714	1989	66	52.53	5.42	50.08
chr9	115467616	115469020	1405	588	35	31.84	5.42	49.71
chr9	115601676	115602738	1063	285	22	30.55	5.75	51.18
chr9	115842045	115843239	1195	645	29	32.74	5.29	49.38
chr9	115940975	115941846	872	592	20	36.83	4.93	46.86
chr9	116459987	116460806	820	312	20	40.15	5.75	46.72
chr9	116520142	116521232	1091	453	23	32.99	5.34	49.23
chr9	117303913	117305080	1168	636	24	33.03	5.75	49.12
chr9	117665419	117666490	1072	511	23	31.64	5.12	49.89
chr9	118644216	118645008	793	505	18	32.85	4.52	49.28
chr9	118715652	118716474	823	549	18	31.11	4.11	50.68
chr9	118930010	118930745	736	461	18	36.46	5.75	47.14
chr9	119662941	119663614	674	386	16	31.3	5.75	50.33
chr9	121326275	121327210	936	340	23	41.74	5.75	47.25
chr9	121449046	121449624	579	289	15	32.66	6.16	49.32
chr9	122486644	122487827	1184	747	24	32.27	5.34	50.08
chr9	123176105	123177310	1206	716	24	31.25	6.16	50.5
chr9	123409912	123411341	1430	621	33	30.58	4.05	51.2

chr9	123545068	123546022	955	487	21	35.18	5.24	47.08
chr9	123593287	123594398	1112	449	25	35.24	4.95	47.29
chr9	123731369	123732753	1385	567	38	76.77	7.39	54.93
chr9	123760899	123761718	820	529	18	31.28	6.57	50.36
chr9	123763149	123764289	1141	402	26	42.42	7.8	47.23
chr9	123847497	123848369	873	587	20	32.22	4.14	50.01
chr9	124084970	124085777	808	441	18	31.97	4.52	49.79
chr9	124259719	124261030	1312	672	27	32.61	5.71	49.38
chr9	124282611	124283727	1117	400	23	31.72	6.57	49.72
chr9	124619092	124619914	823	533	20	39.95	4.52	46.75
chr9	124784685	124785587	903	263	21	39.34	4.93	46.61
chr9	125582021	125583531	1511	932	33	39.19	4.09	46.25
chr9	125811283	125812487	1205	474	32	34.05	4.14	48.51
chr9	125957024	125958210	1187	359	32	43.88	4.98	47.98
chr9	126121293	126121872	580	290	16	34.22	6.09	47.93
chr9	126447230	126448455	1226	942	30	54.72	5.34	54.47
chr9	126529409	126530235	827	560	20	37.38	5.12	46.66
chr9	126590901	126591844	944	404	20	31.87	5.25	49.75
chr9	126929863	126931707	1845	649	36	41.93	4.11	46.97
chr9	126935976	126937486	1511	1212	31	42.79	4.52	47.43
chr9	126992714	126993412	699	289	17	30.8	4.95	51.02
chr9	127630489	127631918	1430	728	36	31.8	3.34	49.83
chr9	127741748	127742676	929	280	21	37.75	5.34	46.67
chr9	127866479	127867752	1274	582	26	31.55	5.39	49.99
chr9	127994626	127996505	1880	1471	44	39.75	5.6	46.66
chr9	128697948	128698896	949	659	20	32.43	5.34	49.57
chr9	129262853	129263784	932	291	21	37.57	6.98	45.87
chr9	129643598	129644432	835	588	19	34.69	6.16	47.81
chr9	129767488	129768367	880	603	19	32.09	5.34	49.72
chr9	129932821	129934078	1258	771	28	44.14	5.75	48.01
chr9	130035684	130036521	838	455	19	31.29	5.39	50.32
chr9	131331052	131332190	1139	544	24	34.45	5.75	47.75
chr9	131572526	131573330	805	266	18	32.14	4.93	49.83
chr9	131684709	131685533	825	384	19	35.3	4.93	47.33
chr9	131790986	131792302	1317	814	29	39.59	4.19	46.6
chr9	131940211	131941892	1682	1050	35	42.37	4.33	47.03
chr9	132588617	132589302	686	291	16	30.55	6.16	51.28
chr9	132717995	132719014	1020	625	22	31.68	6.85	49.82
chr9	133729074	133730639	1566	1277	30	31.54	4.57	49.92
chr9	134097518	134098861	1344	740	28	39.61	7.39	46.59
chr9	134568468	134570317	1850	666	41	52.99	4.57	50.74
chr9	135546699	135548612	1914	287	43	43.51	4.11	48.15
chr9	139701493	139703154	1662	1120	41	30.51	3.42	51.29
chr9	139759161	139760125	965	679	21	31.59	4.95	50.02
chr9	139825525	139826543	1019	442	21	32.74	5.34	49.36
chrX	2827996	2828635	640	363	16	33.55	5.75	48.55
chrX	3629747	3630544	798	527	20	41.66	4.93	47.21
chrX	4351825	4352689	865	576	19	31.99	5.24	49.86
chrX	4533626	4534239	614	341	15	30.6	5.75	51.25
chrX	4538243	4539826	1584	649	31	43.01	3.7	47.48
chrX	4698812	4699632	821	552	19	35.54	4.11	47.22
chrX	5139233	5140463	1231	655	25	33.76	5.75	48.71

chrX	5305475	5306567	1093	326	24	36.84	4.93	46.89
chrX	5375364	5376392	1029	737	22	32.23	4.52	50.02
chrX	5786733	5787680	948	451	21	33.11	4.23	49.18
chrX	5873460	5874343	884	640	21	32.26	4.94	50.08
chrX	6555662	6556685	1024	681	23	36.51	4.52	46.95
chrX	6730537	6731498	962	450	22	31.75	4.95	49.84
chrX	6768770	6771615	2846	2439	65	35.71	4.06	47.23
chrX	6964628	6966270	1643	1241	31	40.27	4.52	46.87
chrX	6988876	6990397	1522	377	31	31.69	4.24	49.79
chrX	7004206	7005946	1741	789	38	31.96	3.45	49.78
chrX	7089994	7091062	1069	576	22	30.26	4.93	51.61
chrX	7892327	7893877	1551	720	38	53.95	5.46	52.47
chrX	8109908	8110782	875	242	19	32.37	4.11	49.85
chrX	8298895	8299496	602	323	18	46.81	6.98	47.29
chrX	8788148	8789177	1030	271	21	32.18	4.11	49.95
chrX	9069492	9070427	936	615	21	33.19	3.42	49.08
chrX	9380562	9381454	893	272	20	31.08	5.27	50.78
chrX	9636756	9637520	765	565	18	34.57	4.11	47.72
chrX	10016447	10017476	1030	349	23	36.18	5.75	46.84
chrX	10690621	10691460	840	404	20	38.84	5.34	46.24
chrX	11645221	11645895	675	386	17	35.9	6.16	47
chrX	12078295	12079625	1331	875	31	52.59	4.52	50.32
chrX	12892778	12893872	1095	432	23	32.79	5.75	49.41
chrX	12992234	12993828	1595	983	39	42.07	3.77	47.05
chrX	13009072	13009991	920	609	20	30.15	4.57	51.67
chrX	13012424	13013384	961	674	23	33.57	4.75	48.64
chrX	13289643	13290837	1195	572	24	31.75	5.75	49.81
chrX	13305761	13306950	1190	616	26	39.7	6.16	46.57
chrX	14008016	14008944	929	287	22	33.59	6.47	48.7
chrX	14064001	14065228	1228	611	26	37.72	5.34	46.53
chrX	14116409	14117086	678	409	16	31.05	5.34	50.56
chrX	14550656	14551552	897	484	19	31.16	4.93	50.56
chrX	14896643	14897396	754	283	19	37.73	5.12	46.59
chrX	15386662	15387603	942	273	22	36.98	5.34	46.95
chrX	15714269	15715408	1140	702	24	30.15	5.33	51.64
chrX	15739036	15739992	957	510	23	37.29	4.67	46.73
chrX	16043779	16044586	808	261	19	36.36	4.52	47.14
chrX	16599322	16600293	972	724	24	43.95	4.93	47.69
chrX	17642184	17643012	829	484	21	39.85	6.09	46.62
chrX	17717848	17718483	636	382	16	30.51	3.81	51.3
chrX	18382566	18383204	639	289	16	33.62	5.75	48.72
chrX	18541323	18542173	851	356	19	30.02	5.71	51.51
chrX	19714414	19715574	1161	639	26	33.18	5.05	49.1
chrX	20068042	20068993	952	258	20	32.27	4.11	50.07
chrX	20109494	20111080	1587	958	30	33.89	3.42	48.6
chrX	21090828	21091504	677	469	17	35.76	4.11	47.1
chrX	21143470	21144106	637	354	16	33.76	6.16	48.72
chrX	21422794	21424003	1210	812	28	46.89	6.98	47.64
chrX	21888244	21889243	1000	592	22	33.74	5.34	48.62
chrX	22095532	22096366	835	291	18	30.44	6.16	51.32
chrX	22354940	22355701	762	266	18	34.76	6.16	47.61
chrX	22712493	22713302	810	317	19	36.23	5.75	46.97

chrX	22910864	22911506	643	254	16	33.35	5.34	48.69
chrX	22978422	22979312	891	326	22	40.1	4.93	46.56
chrX	23284235	23285131	897	350	19	31.16	6.57	50.56
chrX	23335524	23336469	946	287	20	32.59	4.93	49.31
chrX	23648117	23649430	1314	640	29	45.15	6.57	48.84
chrX	24009493	24010270	778	230	19	38.31	6.16	46.37
chrX	24844505	24845189	685	399	16	30.61	6.16	51.15
chrX	25300769	25301636	868	267	19	32.76	5.34	49.36
chrX	26045245	26045994	750	534	17	31.07	4.93	50.77
chrX	26110927	26112098	1172	405	28	49.2	7.8	50.89
chrX	26446854	26447887	1034	262	22	31.98	5.75	49.84
chrX	27001872	27002864	993	468	23	38.27	5.75	46.26
chrX	27009271	27010198	928	182	20	33.57	4.93	48.57
chrX	27018692	27019576	885	452	19	31.81	4.52	49.78
chrX	27197283	27198396	1114	642	26	44	5.34	48
chrX	27246937	27248301	1365	629	28	38.57	7.39	46.12
chrX	27263086	27264061	976	701	20	31.01	4.93	50.49
chrX	28075246	28076631	1386	678	29	41.35	4.52	46.96
chrX	28729206	28730040	835	563	18	30.44	4.11	51.32
chrX	29073528	29074641	1114	497	28	47.34	4.57	48.31
chrX	29124840	29125678	839	335	18	30.22	4.52	51.69
chrX	29270205	29271016	812	547	18	31.74	4.52	49.76
chrX	29604318	29605220	903	273	20	34.99	4.93	47.57
chrX	30296032	30296991	960	332	21	35.94	4.52	47.02
chrX	30533920	30534672	753	530	17	30.89	4.52	50.71
chrX	30601131	30602011	881	513	19	32.03	4.93	49.73
chrX	30685352	30686402	1051	432	21	31.13	6.57	50.63
chrX	31290333	31291398	1066	417	24	38.31	4.52	46.43
chrX	32292123	32292873	751	468	17	31.01	5.34	50.5
chrX	32333369	32334251	883	598	20	36.16	4.93	46.96
chrX	32550025	32551004	980	581	21	33.79	4.43	48.72
chrX	32626135	32627126	992	248	25	47.22	5.34	47.94
chrX	32865418	32866460	1043	614	26	48.44	8.22	49.19
chrX	33006584	33008323	1740	1142	38	36.06	3.97	47.04
chrX	33217666	33218427	762	480	17	30.36	5.34	51.65
chrX	33360859	33361800	942	653	23	36.91	5.33	46.79
chrX	34005730	34007319	1590	514	32	37.09	4.19	46.94
chrX	34484450	34485526	1077	372	24	37.71	5.75	46.49
chrX	34591421	34592318	898	654	20	35.28	5.34	47.36
chrX	35711359	35712020	662	382	16	32.08	5.34	49.79
chrX	36155475	36156236	762	279	17	30.36	4.11	51.65
chrX	37498979	37499884	906	491	23	43.69	5.75	47.99
chrX	37623391	37624690	1300	1050	30	50.13	5.34	51.56
chrX	37897512	37898290	779	288	19	38.24	5.75	46.29
chrX	37979784	37980499	716	456	18	37.83	4.93	46.66
chrX	38099487	38100237	751	476	18	33.42	5.12	48.7
chrX	38307295	38308341	1047	395	21	31.33	5.75	50.27
chrX	38969723	38970604	882	626	22	40.68	4.93	46.47
chrX	39646185	39647993	1809	1018	75	86.77	5.84	43.24
chrX	40907578	40908271	694	285	16	30.06	4.11	51.46
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chrX	41295576	41296198	623	287	15	30.01	4.93	51.46

chrX	43549409	43550671	1263	638	28	43.86	5.34	47.89
chrX	43816455	43817333	879	615	19	32.14	4.11	49.88
chrX	44305197	44306058	862	596	20	37.44	4.93	46.3
chrX	44658730	44659456	727	299	19	41.9	5.34	46.94
chrX	44850564	44851567	1004	289	25	38.14	4.69	46.27
chrX	45223094	45224128	1035	392	26	43.81	5.33	47.82
chrX	45361777	45362450	674	393	16	31.3	4.52	50.33
chrX	46735647	46736737	1091	732	24	30.17	4.74	51.64
chrX	46810020	46810704	685	256	16	30.61	5.75	51.15
chrX	47516261	47517066	806	549	19	36.48	6.16	47.06
chrX	47630716	47632197	1482	760	32	48.18	5.75	49.51
chrX	48338809	48339531	723	437	18	37.34	5.34	46.8
chrX	49378350	49379274	925	371	20	33.74	6.57	48.66
chrX	49899287	49900004	718	470	17	33.04	4.52	49.11
chrX	50865693	50866769	1077	287	26	46.26	5.75	48.57
chrX	51015234	51015985	752	291	17	30.95	4.11	50.53
chrX	51232142	51234161	2020	660	44	59.45	6.16	55.15
chrX	51539937	51540844	908	438	21	39.03	7.39	46.21
chrX	51616553	51618650	2098	1497	41	32.79	5.14	49.42
chrX	52957278	52958634	1357	584	30	32.71	6.72	49.37
chrX	53072483	53073175	693	269	19	44.5	5.75	48.6
chrX	53410933	53411937	1005	618	24	31.28	4.79	50.43
chrX	54059943	54061015	1073	792	21	30.07	4.52	51.46
chrX	54191265	54192226	962	538	21	35.83	4.93	47.08
chrX	54938413	54939306	894	282	22	39.91	5.75	46.62
chrX	55113205	55114277	1073	331	21	30.07	4.52	51.46
chrX	55263181	55264109	929	254	21	37.75	5.34	46.67
chrX	55412456	55413161	706	267	17	33.81	5.34	48.84
chrX	55478241	55479403	1163	499	28	49.76	6.16	52.04
chrX	56768253	56769022	770	336	18	34.26	5.75	47.87
chrX	56853080	56853894	815	268	19	35.92	4.93	47.05
chrX	57850947	57851809	863	272	21	41.93	6.98	46.96
chrX	58453539	58454475	937	648	21	36.21	5.64	46.94
chrX	61860530	61861567	1038	457	24	39.91	6.57	46.65
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chrX	62985437	62986749	1313	679	26	33.62	5.34	48.71
chrX	63411727	63412992	1266	547	31	56.65	6.98	53.38
chrX	63485362	63486199	838	267	18	30.27	5.34	51.68
chrX	64432368	64433423	1056	633	21	30.89	6.57	50.76
chrX	65627888	65628954	1067	638	23	34.21	6.16	47.92
chrX	66305775	66306339	565	282	16	37.66	6.57	46.06
chrX	66993905	66994800	896	242	20	35.39	4.93	47.63
chrX	67735134	67736002	869	585	20	37.01	5.34	46.95
chrX	69023425	69024410	986	549	20	30.51	5.34	51.28
chrX	69450259	69451309	1051	426	21	31.13	4.93	50.63
chrX	69513662	69514324	663	427	16	32.01	4.93	49.76
chrX	70182701	70184160	1460	778	31	39.71	4.19	46.55
chrX	70347671	70348789	1119	623	28	33.51	4.98	48.64
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chrX	72829539	72830264	726	287	17	32.53	5.34	49.39
chrX	72830885	72831930	1046	268	23	35.32	4.52	47.4
chrX	72857433	72858487	1055	278	22	30.94	7.39	50.6

chrX	73048474	73049298	825	539	19	35.3	5.34	47.33
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chrX	75198745	75199728	984	505	20	30.61	6.16	51.15
chrX	75387220	75388055	836	339	19	34.26	4.89	47.88
chrX	75641699	75642725	1027	505	21	32.33	4.52	49.98
chrX	76318238	76318929	692	409	17	31.25	4.19	50.51
chrX	76600188	76601256	1069	575	22	30.26	5.75	51.61
chrX	77116303	77117465	1163	592	24	33.27	5.75	48.95
chrX	78037162	78037990	829	289	19	31.28	5.71	50.44
chrX	78166669	78167396	728	266	18	37	5.34	47.02
chrX	80030070	80030880	811	525	22	35.23	4.45	47.23
chrX	80288463	80289498	1036	773	21	31.88	4.52	49.76
chrX	80308942	80309901	960	347	22	35.94	4.93	47.02
chrX	80650049	80650788	740	476	17	31.67	5.75	49.82
chrX	81955796	81956786	991	345	20	30.26	4.52	51.67
chrX	81961952	81962938	987	561	20	30.46	6.16	51.3
chrX	82275816	82277205	1390	452	36	59.67	6.09	55.82
chrX	82477778	82478566	789	504	18	33.09	5.34	49.16
chrX	82523516	82524448	933	446	23	41.93	6.16	47
chrX	82809110	82810197	1088	366	23	33.14	4.52	49.16
chrX	83193873	83194666	794	299	18	32.79	4.52	49.41
chrX	83615957	83617470	1514	632	30	36	4.72	47.09
chrX	83688360	83689160	801	290	19	33.51	4.23	48.63
chrX	84032592	84033359	768	501	17	30.01	5.34	51.49
chrX	84419855	84421058	1204	655	25	35.06	4.52	47.4
chrX	84926876	84927770	895	541	20	35.45	6.98	47.41
chrX	85121278	85122061	784	497	19	37.91	6.98	46.57
chrX	85180466	85182016	1551	594	32	30.85	3.73	50.91
chrX	85278313	85279274	962	236	23	33.31	5.1	48.74
chrX	85557023	85557949	927	288	22	37.87	6.57	46.67
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chrX	86244275	86245003	729	414	18	36.93	4.93	46.83
chrX	86276608	86277547	940	672	20	32.91	6.16	49.24
chrX	86550101	86551096	996	271	20	30.01	4.52	51.45
chrX	87088028	87089226	1199	920	33	66.03	6.16	54.49
chrX	87382415	87382983	569	284	16	37.66	6.57	46.06
chrX	87565061	87566139	1079	265	26	41.08	5.71	46.36
chrX	87586005	87586885	881	623	20	36.28	5.34	46.9
chrX	87737912	87738774	863	613	19	33.05	4.52	49.1
chrX	88762532	88763402	871	288	19	32.59	5.75	49.42
chrX	89001186	89002100	915	438	20	34.3	6.16	47.81
chrX	89011340	89012288	949	291	25	38.45	4.79	46.37
chrX	89170670	89171658	989	279	21	30.33	4.19	51.58
chrX	90104388	90105204	817	532	18	31.45	4.52	50
chrX	90177213	90178477	1265	597	25	32.19	6.98	49.99
chrX	90358875	90359752	878	616	19	32.2	4.11	49.92
chrX	90416468	90418413	1946	1524	42	71.64	7.39	54.37
chrX	91662541	91663416	876	284	19	32.31	4.93	50.09
chrX	91911757	91912650	894	271	22	39.91	4.52	46.62
chrX	92654215	92655039	825	558	18	30.99	4.52	50.47
chrX	92879384	92880512	1129	841	24	30.68	4.95	50.98
chrX	93942504	93943720	1217	631	28	41.15	6.85	46.33



chrX	94158413	94159153	741	307	17	31.61	5.75	49.92
chrX	94942473	94943267	795	511	19	37.19	5.75	46.82
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chrX	96099837	96100908	1072	796	28	42.62	5.14	47.37
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chrX	96482835	96483933	1099	461	24	36.52	5.75	46.93
chrX	96722915	96723786	872	283	19	32.54	4.52	49.4
chrX	96890141	96891183	1043	438	22	31.53	5.75	49.89
chrX	97122726	97123568	843	285	19	34.21	5.34	47.87
chrX	97123695	97124594	900	668	19	31	5.34	50.47
chrX	97445349	97446216	868	381	22	41.16	6.12	46.44
chrX	98115297	98116085	789	530	18	33.09	5.34	49.16
chrX	98269084	98269791	708	424	17	33.68	4.93	48.62
chrX	98499821	98500869	1049	611	21	31.23	5.75	50.5
chrX	99355255	99356167	913	347	19	30.31	4.11	51.54
chrX	99587201	99588029	829	265	19	35.05	4.52	47.49
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chrX	100351631	100352469	839	552	18	30.22	4.52	51.69
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chrX	100728226	100729518	1293	535	30	37.27	5.14	46.55
chrX	101122296	101122870	575	287	15	32.66	6.16	49.32
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chrX	101945471	101946339	869	263	19	32.71	5.34	49.41
chrX	102216231	102217193	963	430	21	35.77	5.34	47.11
chrX	102302239	102303249	1011	740	23	37.24	5.75	46.69
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chrX	103316161	103317084	924	670	20	33.79	4.93	48.76
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chrX	104380877	104381855	979	530	23	39.1	5.34	46.38
chrX	104501963	104502974	1012	634	24	41.45	6.16	47.03
chrX	105294372	105295187	816	546	18	31.51	5.34	49.84
chrX	105361837	105362694	858	559	21	42.26	4.93	47.24
chrX	105476581	105477264	684	280	17	32.93	4.68	49.36
chrX	105897586	105898673	1088	597	26	45.57	5.34	50.15
chrX	106120662	106121795	1134	545	25	38.68	5.75	46.16
chrX	106447602	106448953	1352	844	34	60.13	7.39	55.32
chrX	106874192	106875824	1633	1342	31	40.72	4.52	46.5
chrX	107244878	107245904	1027	527	22	32.33	5.34	49.98
chrX	107705281	107706758	1478	896	32	48.39	4.52	49.2
chrX	107971365	107973061	1697	626	35	31.39	4.11	50.23
chrX	108024451	108025891	1441	667	33	50.42	6.57	51.99
chrX	108140113	108140948	836	267	18	30.38	4.52	51.65
chrX	108232090	108233049	960	267	21	31.86	4.19	49.71
chrX	108618732	108619545	814	388	18	31.62	6.16	49.94
chrX	108702748	108703812	1065	452	24	33.92	5.33	48.73
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chrX	109133857	109134839	983	593	21	34.66	4.93	47.66
chrX	109171177	109171858	682	278	16	30.8	4.93	51

chrX	109655181	109656279	1099	728	24	32.16	4.57	49.88
chrX	109762908	109763780	873	625	20	36.77	4.52	46.92
chrX	110458041	110458794	754	546	17	30.83	4.11	50.9
chrX	110554659	110555462	804	516	18	32.2	4.93	49.96
chrX	111017198	111018627	1430	875	30	43	5.34	47.49
chrX	111559690	111560822	1133	396	23	30.96	5.34	50.53
chrX	112004211	112005535	1325	498	29	39.18	5.71	46.25
chrX	112212996	112213839	844	393	21	43.22	6.16	47.65
chrX	112564223	112565161	939	346	20	32.97	4.11	49.31
chrX	112777226	112778116	891	288	19	31.48	4.52	49.85
chrX	112885448	112886690	1243	665	25	33.2	4.52	49.09
chrX	112912874	112913907	1034	694	24	40.14	5.75	46.67
chrX	113298596	113299281	686	418	16	30.55	4.93	51.28
chrX	113401990	113402804	815	322	19	35.92	5.34	47.05
chrX	113507027	113508021	995	489	21	34.01	5.75	48.54
chrX	113567790	113568664	875	455	19	32.37	4.52	49.85
chrX	113897949	113898698	750	459	17	31.07	6.16	50.77
chrX	114114207	114115409	1203	911	29	51.69	5.75	51.38
chrX	116447895	116448854	960	438	20	31.84	5.75	49.73
chrX	117070824	117071506	683	456	17	35.35	6.57	47.45
chrX	117566585	117567822	1238	748	26	32.58	5.71	49.32
chrX	117764485	117765512	1028	741	29	57.96	6.09	53.42
chrX	117772696	117773721	1026	349	27	54.31	6.57	54.44
chrX	118713874	118714844	971	377	21	31.27	4.19	50.45
chrX	119162405	119163321	917	284	22	38.48	5.34	46.32
chrX	120134829	120135695	867	501	21	41.66	6.16	47.25
chrX	120165082	120165985	904	631	19	30.79	3.7	50.91
chrX	122361386	122362296	911	464	19	30.42	6.57	51.31
chrX	122820030	122821733	1704	1111	40	63.91	6.12	53.47
chrX	124066624	124067518	895	535	19	31.27	4.11	50.46
chrX	124149379	124150259	881	378	20	36.28	5.34	46.9
chrX	124431418	124432751	1334	548	27	35.84	6.52	47
chrX	124475953	124477060	1108	591	25	40.11	5.75	46.61
chrX	125314673	125315348	676	286	16	31.17	4.93	50.55
chrX	125336539	125337468	930	233	20	33.46	5.75	48.63
chrX	125380117	125380742	626	198	16	34.53	4.11	47.73
chrX	125417986	125418757	772	380	19	38.71	6.16	46.28
chrX	125600470	125601469	1000	284	21	33.74	4.93	48.62
chrX	126499163	126499994	832	325	18	30.6	4.93	51.25
chrX	126893753	126894869	1117	599	27	48.2	6.98	49.46
chrX	126920187	126921185	999	365	21	33.79	5.75	48.82
chrX	127113384	127114061	678	398	17	32.17	4.95	49.92
chrX	127608366	127608949	584	315	15	32.66	5.34	49.32
chrX	128547208	128548839	1632	1027	32	40.77	5.75	46.49
chrX	129511342	129512699	1358	726	28	38.92	5.75	46.31
chrX	130061988	130062923	936	681	20	33.13	4.93	49.14
chrX	130432593	130433567	975	416	20	31.07	4.52	50.75
chrX	130864647	130866407	1761	1441	32	33.93	4.43	48.73
chrX	130932186	130933935	1750	1151	43	65.98	5.51	53.85
chrX	130971574	130972294	721	348	17	32.85	5.34	49.39
chrX	130976873	130977693	821	555	20	30.57	4.11	51.23
chrX	131408690	131409511	822	543	24	37.3	3.74	46.75

chrX	131907916	131908781	866	275	19	32.88	4.52	49.29
chrX	131954150	131955106	957	686	20	32	4.11	49.74
chrX	131967693	131968447	755	320	18	35.21	6.16	47.17
chrX	132274620	132275397	778	445	19	38.31	4.93	46.37
chrX	132280899	132281950	1052	578	22	31.08	4.93	50.76
chrX	132830424	132831261	838	574	19	34.51	4.11	47.68
chrX	133069383	133070339	957	688	21	32.03	4.57	49.77
chrX	133459996	133461037	1042	505	26	42.63	6.02	47.37
chrX	133647513	133648925	1413	691	30	43.87	6.16	47.95
chrX	134400559	134401539	981	693	21	34.77	5.75	47.62
chrX	134611434	134612165	732	430	17	32.16	4.52	49.88
chrX	135038728	135039582	855	286	20	37.88	4.93	46.61
chrX	135222198	135222903	706	259	18	38.53	4.52	46.17
chrX	135772223	135773010	788	516	19	31.63	4.37	49.89
chrX	135879604	135880533	930	306	21	37.69	5.34	46.43
chrX	136506467	136507244	778	499	18	33.76	4.52	48.7
chrX	137977197	137977798	602	276	15	31.4	5.75	50.19
chrX	139391401	139392344	944	654	20	32.69	4.52	49.42
chrX	139549482	139550783	1302	648	26	34.13	6.16	48.08
chrX	140731370	140732286	917	626	19	30.1	4.93	51.55
chrX	141014917	141015672	756	324	17	30.71	4.93	51.03
chrX	141224718	141225854	1137	846	25	38.51	4.93	46.22
chrX	141310143	141310969	827	249	19	35.17	4.52	47.09
chrX	141647449	141648418	970	258	21	35.38	4.52	47.52
chrX	141968102	141968931	830	538	19	34.99	4.52	47.59
chrX	142895340	142896749	1410	381	33	52.19	5.75	51.36
chrX	143002158	143002821	664	285	18	41.65	6.98	47.1
chrX	143231681	143233055	1375	765	29	41.91	5.75	47.08
chrX	143371199	143371911	713	404	17	33.36	6.16	48.67
chrX	144229885	144230807	923	275	20	33.85	6.57	48.75
chrX	144259606	144260972	1367	710	28	38.48	5.75	46.37
chrX	144272131	144272956	826	539	19	35.24	4.52	47.26
chrX	144411493	144412267	775	250	18	33.95	5.34	48.68
chrX	144522180	144523011	832	220	19	34.87	4.93	47.65
chrX	145034572	145036157	1586	630	31	42.91	4.93	47.39
chrX	145487249	145488065	817	502	18	31.45	3.7	50
chrX	145599149	145601047	1899	1371	39	51.02	4.97	51.77
chrX	145921475	145922443	969	477	22	35.43	5.34	47.46
chrX	146691686	146692745	1060	644	21	30.69	4.93	51.01
chrX	146931642	146932679	1038	585	21	31.78	4.93	49.85
chrX	146938860	146939758	899	656	19	31.05	4.52	50.69
chrX	147238713	147239663	951	283	20	32.32	4.93	50.02
chrX	147472312	147473568	1257	588	25	32.55	6.16	49.37
chrX	147662660	147664274	1615	1078	36	31.74	5.03	49.78
chrX	148074226	148075322	1097	587	23	32.69	4.52	49.38
chrX	148283820	148284911	1092	636	35	85.39	8.63	51.28
chrX	148361726	148363170	1445	1125	30	42.24	4.52	47.01
chrX	148600310	148601910	1601	271	38	58.18	4.72	53.93
chrX	148706593	148707630	1038	650	22	31.78	4.93	49.85
chrX	148897920	148898831	912	566	21	34.58	4.57	47.71
chrX	149029140	149029976	837	462	18	30.33	5.75	51.59
chrX	149309993	149311024	1032	460	22	32.08	5.75	49.81

chrX	149642696	149643673	978	378	21	34.93	3.7	47.58
chrX	149887958	149888818	861	355	20	32.37	4.84	49.76
chrX	150724901	150725590	690	411	20	50.01	6.16	51.72
chrX	151695282	151696264	983	641	21	34.66	5.34	47.66
chrX	152503909	152504659	751	269	18	35.47	4.93	47.45
chrX	152772836	152773515	680	290	16	30.92	6.16	50.56
chrX	153656575	153657540	966	553	21	35.6	5.34	47.23
chrX	154079411	154080300	890	352	22	40.16	6.98	46.66
chrX	154323003	154324660	1658	229	33	30.04	3.08	51.45
chrX	154468912	154470372	1461	887	32	43.34	3.81	47.84
chrX	154532275	154532979	705	437	17	30.42	4.95	51.34
chrY	1209962	1211200	1239	731	25	33.38	6.16	48.69
chrY	10035383	10036791	1409	1076	366	113.08	4.03	25
chrY	10037581	10038076	496	248	60	37.54	3	45.98
chrY	13292531	13293341	811	277	21	34.69	5.76	47.82
chrY	28583721	28584320	600	288	24	77.36	9.04	55.88

**Supplemental Table 5: Fold enrichment, p-values and fold changes of 20 genes. Top: ChIP-seq; Middle & Bottom: RNA-seq.**

Chr:Start-End	Length	Summit_position	TagCount	-10*LOG(p-value)	Fold_enric	hmFDR(%)	Peak_Class	Refseq_nSymbol	Chr	TSS	TTS	Strand	Peak_to_TSS
chr10:134198600-134199330	731	476	21	51.88	6.98	50.81	upstream	NM_0010 PWWP2B	chr10	134210703	134231358	+	-11739
chr10:134198600-134199330	731	476	21	51.88	6.98	50.81	upstream	NM_1384 PWWP2B	chr10	134210703	134231358	+	-11739
chr18:6461630-6463116	1487	736	32	42.01	6.85	47.03	intergenic	NM_0013 L3MBTL4	chr18	6415258	5954704	-	-47114
chr2:31529054-31530433	1380	797	30	45.62	6.16	50.15	intergenic	NM_0146 EHD3	chr2	31457017	31492317	+	72726
chr18:6267203-6268076	874	376	22	41.2	5.75	46.62	intron	NM_0013 L3MBTL4	chr18	6415258	5954704	-	147619
chr18:6452788-6453378	591	291	16	37.12	5.75	46.92	intergenic	NM_0013 L3MBTL4	chr18	6415258	5954704	-	-37824
chr9:119662941-119663614	674	386	16	31.3	5.75	50.33	intergenic	NM_0010 TRIM32	chr9	119449583	119463578	+	213694
chr1:175101713-175102330	618	335	15	30.33	5.75	51.64	intergenic	NM_0146 KIAA0040	chr1	175161912	175126121	-	59891
chr1:175101713-175102330	618	335	15	30.33	5.75	51.64	intergenic	NM_0013 KIAA0040	chr1	175161912	175126121	-	59891
chr1:175101713-175102330	618	335	15	30.33	5.75	51.64	intergenic	NM_0011 KIAA0040	chr1	175161912	175126121	-	59891
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_0012 TXNRD1	chr12	104680809	104744085	+	-10101
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_0012 TXNRD1	chr12	104680809	104744085	+	-10101
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_0033 TXNRD1	chr12	104680809	104744085	+	-10101
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_1827 TXNRD1	chr12	104680809	104744085	+	-10101
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_1827 TXNRD1	chr12	104680809	104744085	+	-10101
chr12:104670404-104671014	611	281	15	30.8	5.75	51.01	upstream	NM_1827 TXNRD1	chr12	104680809	104744085	+	-10101
chr1:55352422-55353509	1088	800	28	33.03	5.41	49.15	promoter	NM_0147 DHCR24	chr1	55352868	55315299	-	-97
chr12:26505898-26506782	885	605	19	31.81	5.34	49.78	intron	NM_0022 ITPR2	chr12	26986127	26488284	-	479788
chr1:184058463-184059782	1320	479	28	40.82	5.34	46.34	intron	NM_0013 TSEN15	chr1	184020863	184066619	+	38259
chr3:47078843-47079507	665	287	19	34.42	5.21	47.81	exon	NM_0141 SETD2	chr3	47205467	47057897	-	126293
chr1:110658327-110658827	501	250	15	34.17	5.14	48.01	intergenic	NM_2034 UBL4B	chr1	110655064	110656569	+	3512
chr14:24102125-24102740	616	353	18	31.69	4.98	49.76	upstream	NM_0057 DHRS2	chr14	24105572	24114848	+	-3140
chr14:24102125-24102740	616	353	18	31.69	4.98	49.76	upstream	NM_1829 DHRS2	chr14	24105572	24114848	+	-3140
chr14:24131809-24132668	860	579	21	41.02	4.83	46.23	intergenic	NM_0057 DHRS2	chr14	24105572	24114848	+	26666
chr14:24131809-24132668	860	579	21	41.02	4.83	46.23	intergenic	NM_1829 DHRS2	chr14	24105572	24114848	+	26666
chr12:26703161-26704634	1474	769	41	38.3	4.63	46.38	intron	NM_0022 ITPR2	chr12	26986127	26488284	-	282230
chr2:174783402-174784377	976	285	26	38.26	4.61	46.28	intron	NM_0010 SP3	chr2	174828608	174765504	-	44719
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_1983 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_1983 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_0013 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_0013 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_0013 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_0013 INSIG1	chr7	155089481	155101945	+	-54752
chr7:155034163-155035297	1135	289	24	34.65	4.52	47.66	intergenic	NM_0013 INSIG1	chr7	155089481	155101945	+	-54752
chr14:24239254-24240563	1310	594	30	31.89	4.48	49.82	intergenic	NM_0057 DHRS2	chr14	24105572	24114848	+	134336
chr14:24239254-24240563	1310	594	30	31.89	4.48	49.82	intergenic	NM_1829 DHRS2	chr14	24105572	24114848	+	134336
chr17:61580035-61581019	985	290	21	34.55	4.11	47.78	intergenic	NM_1528 ACE	chr17	61562206	61575734	+	18320
chr17:61580035-61581019	985	290	21	34.55	4.11	47.78	intergenic	NM_0011 ACE	chr17	61562206	61575734	+	18320
chr12:26576212-26577301	1090	287	25	30.33	4.11	51.64	intron	NM_0022 ITPR2	chr12	26986127	26488284	-	409371
chr12:104585525-104586332	808	578	18	31.97	4.11	49.79	intergenic	NM_0010 TXNRD1	chr12	104609556	104744085	+	-23628
chr14:70817101-70818891	1791	825	49	51.92	4	51.04	intron	NM_0012 COX16	chr14	70826400	70791797	-	8405
chr14:70817101-70818891	1791	825	49	51.92	4	51.04	intron	NM_0164 COX16	chr14	70826400	70791797	-	8405
chr20:3024419-3025652	1234	485	30	38.45	3.99	46.38	promoter	NM_0013 GNRH2	chr20	3024267	3026393	+	768
chr20:3024419-3025652	1234	485	30	38.45	3.99	46.38	promoter	NM_0015 GNRH2	chr20	3024267	3026393	+	768
chr20:3024419-3025652	1234	485	30	38.45	3.99	46.38	promoter	NM_1783 GNRH2	chr20	3024267	3026393	+	768
chr20:3024419-3025652	1234	485	30	38.45	3.99	46.38	promoter	NM_1783 GNRH2	chr20	3024267	3026393	+	768
chr10:1089042-1090655	1614	246	38	44.96	3.77	48.76	intron	NM_0013 IDI1	chr10	1094826	1085091	-	4978
chr10:1089042-1090655	1614	246	38	44.96	3.77	48.76	intron	NM_0013 IDI1	chr10	1094826	1085091	-	4978
chrX:149642696-149643673	978	378	21	34.93	3.7	47.58	intron	NM_0054 MAMLD1	chrX	149613719	149682448	+	29465
chrX:149642696-149643673	978	378	21	34.93	3.7	47.58	intron	NM_0011 MAMLD1	chrX	149613719	149682448	+	29465

chr3:47161540-47166279	4740	4114	122	35.98	3.54	47.07	exon	NM_0141 SETD2	chr3	47205467	47057897	-	41558
chr12:56509321-56512097	2777	1256	75	34.17	3.42	48.01	promoter	NM_0013 ZC3H10	chr12	56512200	56521298	+	-1492
chr12:56509321-56512097	2777	1256	75	34.17	3.42	48.01	promoter	NM_0327 ZC3H10	chr12	56512049	56521298	+	-1341
chr12:56509321-56512097	2777	1256	75	34.17	3.42	48.01	promoter	NM_0013 ZC3H10	chr12	56512049	56521298	+	-1341

Track_id	Gene_Nam	Locus	Strand	Gene_Type	log2FC	Fold_Cha	Sh1_FPKM	shCtrl_FPKM	shCtrl	Sh1
ENSG00000186150.4_2	UBL4B	chr1:110655090-	+	protein_coding	-2.8154478	0.14206	0	2.81545	6.03938	0
ENSG00000186480.12_3	INSIG1	chr7:155089486-	+	protein_coding	-2.3529101	0.19575	3.147257	5.50017	44.2601	7.85969
ENSG00000235750.9_2	KIAA0040	chr1:175126123-	-	protein_coding	-1.9501678	0.25879	4.2138025	6.16397	70.7034	17.5559
ENSG00000171813.13_2	PWWP2B	chr10:134210672-	+	protein_coding	-1.8907695	0.26966	0.2918723	2.18264	3.53984	0.22423
ENSG00000159640.15_3	ACE	chr17:61554422-	+	protein_coding	-1.7555982	0.29615	0.3550567	2.11065	3.31887	0.27904
ENSG0000013016.15_3	EHD3	chr2:31457203-	+	protein_coding	-1.7476846	0.29778	4.6732451	6.42093	84.6826	24.5145
ENSG00000125787.11_2	GNRH2	chr20:3024268-	+	protein_coding	-1.1892927	0.43852	0.370943	1.56024	1.94902	0.2932
ENSG00000119401.10_3	TRIM32	chr9:119449581-	+	protein_coding	-1.1787283	0.44174	1.4286893	2.60742	5.09412	1.69202
ENSG00000067064.10_3	IDI1	chr10:1085848-	-	protein_coding	-1.156443	0.44862	4.8654264	6.02187	63.9775	28.15
ENSG00000116133.11_2	DHCR24	chr1:55315306-	-	protein_coding	-1.0705566	0.47614	4.3863123	5.45687	42.9219	19.9128
ENSG00000133983.14_3	COX16	chr14:70791798-	-	protein_coding	-0.8842046	0.54179	4.5767711	5.46098	43.0471	22.8641
ENSG00000198431.15_3	TXNRD1	chr12:104609557-	+	protein_coding	-0.7761519	0.58392	4.2673625	5.04351	31.9799	18.2577
ENSG00000135482.6_3	ZC3H10	chr12:56511943-	+	protein_coding	-0.7686522	0.58697	0.4310136	1.19967	1.29686	0.34818
ENSG00000198860.11_2	TSEN15	chr1:184020811-	+	protein_coding	-0.735994	0.6004	2.6701149	3.40611	9.60086	5.3648
ENSG00000154655.15_4	L3MBTL4	chr18:5954705-	-	protein_coding	-0.7308002	0.60257	1.0144416	1.74524	2.35251	1.02012
ENSG00000181555.20_4	SETD2	chr3:47057919-	-	protein_coding	-0.7028311	0.61437	3.86438	4.56721	22.7065	13.5645
ENSG00000123104.11_3	ITPR2	chr12:26489448-	-	protein_coding	-0.6672393	0.62971	3.8208872	4.48813	21.442	13.1319
ENSG00000100867.14_3	DHRS2	chr14:24099324-	+	protein_coding	-0.6180533	0.65155	0.5629773	1.18103	1.26739	0.47731
ENSG00000172845.14_2	SP3	chr2:174771187-	-	protein_coding	-0.6104509	0.65499	3.6154335	4.22588	17.7119	11.2561
ENSG00000013619.13_3	MAMLD1	chrX:149529689- 149682448	+	protein_coding	-0.5995709	0.65995	3.5901796	4.18975	17.2491	11.0435

Track_id	Gene_Nam	Locus	Strand	Gene_Type	log2FC	Fold_Cha	Sh2_FPKM	shCtrl_FPKM	shCtrl	Sh2
ENSG00000186150.4_2	UBL4B	chr1:110655090-	+	protein_coding	-2.0344297	0.2441	0.781018	2.81545	6.03938	0.71834
ENSG00000186480.12_3	INSIG1	chr7:155089486-	+	protein_coding	-1.905961	0.26684	3.5942061	5.50017	44.2601	11.0771
ENSG00000159640.15_3	ACE	chr17:61554422-	+	protein_coding	-1.2849036	0.4104	0.8257512	2.11065	3.31887	0.77246
ENSG00000119401.10_3	TRIM32	chr9:119449581-	+	protein_coding	-1.2343116	0.42505	1.373106	2.60742	5.09412	1.59028
ENSG00000013619.13_3	MAMLD1	chrX:149529689-	+	protein_coding	-1.2208796	0.42902	2.9688709	4.18975	17.2491	6.82923
ENSG00000198860.11_2	TSEN15	chr1:184020811-	+	protein_coding	-1.1763851	0.44246	2.2297238	3.40611	9.60086	3.69044
ENSG0000013016.15_3	EHD3	chr2:31457203-	+	protein_coding	-0.9939229	0.50211	5.4270069	6.42093	84.6826	42.0221
ENSG00000125787.11_2	GNRH2	chr20:3024268-	+	protein_coding	-0.8827773	0.54232	0.6774584	1.56024	1.94902	0.59932
ENSG00000067064.10_3	IDI1	chr10:1085848-	-	protein_coding	-0.8490045	0.55517	5.1728649	6.02187	63.9775	35.0734
ENSG00000235750.9_2	KIAA0040	chr1:175126123-	-	protein_coding	-0.8149777	0.56842	5.3489925	6.16397	70.7034	39.7575
ENSG00000154655.15_4	L3MBTL4	chr18:5954705-	-	protein_coding	-0.7877627	0.57924	0.9574791	1.74524	2.35251	0.94191
ENSG00000100867.14_3	DHRS2	chr14:24099324-	+	protein_coding	-0.7794169	0.5826	0.4016137	1.18103	1.26739	0.32098
ENSG00000135482.6_3	ZC3H10	chr12:56511943-	+	protein_coding	-0.7524094	0.59361	0.4472564	1.19967	1.29686	0.36344
ENSG00000172845.14_2	SP3	chr2:174771187-	-	protein_coding	-0.6993889	0.61583	3.5264955	4.22588	17.7119	10.5234
ENSG00000198431.15_3	TXNRD1	chr12:104609557-	+	protein_coding	-0.6954616	0.61751	4.3480528	5.04351	31.9799	19.3655
ENSG00000171813.13_2	PWWP2B	chr10:134210672-	+	protein_coding	-0.6783238	0.62489	1.5043179	2.18264	3.53984	1.83691
ENSG00000123104.11_3	ITPR2	chr12:26489448-	-	protein_coding	-0.6770263	0.62545	3.8111001	4.48813	21.442	13.0364
ENSG00000116133.11_2	DHCR24	chr1:55315306-	-	protein_coding	-0.675841	0.62597	4.7810278	5.45687	42.9219	26.4937
ENSG00000181555.20_4	SETD2	chr3:47057919-	-	protein_coding	-0.6352772	0.64382	3.9319339	4.56721	22.7065	14.2627
ENSG00000133983.14_3	COX16	chr14:70791798-	-	protein_coding	-0.6061028	0.65697	4.8548729	5.46098	43.0471	27.9376

## Supplemental Data of SOX9 Sanger Sequencing

SOX9 Sanger sequencing was attempted on DNA extracted from archived paraffin sections in 8 SOX9-positive DLBCL cases. Because of the high GC content of SOX9 (67% in the coding region) and the suboptimal DNA quality, amplicon generation and sequencing was very challenging. In one case, no amplicons were successfully generated. In the other cases, only a portion of the SOX9 coding region can be sequenced (See table below).

	<b>#1</b> 373-553	<b>#2</b> 539-803	<b>#3a</b> 803-883	<b>#3b</b> 882-1057	<b>#4</b> 1058-1248	<b>#5</b> 1192-1325	<b>#6</b> 1271-1551	<b>#7</b> 1332-1615	<b>#8</b> 1572-1689	<b>#9a</b> 1668-1864	<b>#9a</b> 1788-1902
#1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
#2	NA	NA		NA	NA		NA	NA		NA	NA
#3	NA	NA	NA	NA			NA	NA			NA
#4		NA		NA			NA	NA			
#5	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
#6		NA	NA	NA	NA		NA	NA	NA	NA	
#7					NA		NA	NA			
#8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

The numbers indicated the nucleotide positions within the SOX9 mRNA sequence (NM\_000346). SOX9 coding sequence extends from 373 to 1902. Green indicates that the sequence within that region was successfully generated. NA, not amplified. CDS, coding sequence. No mutations were identified.

Primers used for Sanger sequencing

SOX9\_1 FW TTCTCGCCTTTCCCGGC

SOX9\_1 REV GTCCTCCTCGCTCTCCTTCT

SOX9\_2 FW GGAGAACACGTTCCCAAGG

SOX9\_2 REV CGGGGCGGGGCAAATCA

SOX9\_3a FW CGCTCAGGTCAGACTGCAATAA

SOX9\_3a REV CCGCGGCTGGTACTTGTAAT

SOX9\_3b FW AGCACAAGAAGGACCACCC

SOX9\_3b REV GAGATAGCTTGTCCGGTGGGG

SOX9\_4 FW TCTCGTGCTTGTTCTTTTATTGTCC

SOX9\_4 REV GGCAGGTAAGTGGTCAAACCTC

SOX9\_5 FW TATCGACTTCCGCGACGTG

SOX9\_5 REV GGTGCTGCTGATGCCGTAG

SOX9\_6 FW TTTGACCAGTACCTGCCGC

SOX9\_6 REV TCCGTCTTGATGTGCGTTCCG

SOX9\_7 FW CTACACGGGCAGCTACGG

SOX9\_7 REV GCTGTAGGCGATCTGTTGGG

SOX9\_8 FW CGAACGCACATCAAGACGGA

SOX9\_8 REV TGGTGGTCGGTGTAGTCGTA



SOX9\_9a FW CCACACTACAGCCCCTCCTA

SOX9\_9a REV TGTGTAGACGGGTTGTTCCC

SOX9\_9b FW TTCACCTACATGAACCCCGC

SOX9\_9b REV ATCATCTCGGCCATCTTCGC