

Supplementary Materials for

Metatranscriptome of human lung microbial communities in a cohort of mechanically ventilated COVID-19 Omicron patients

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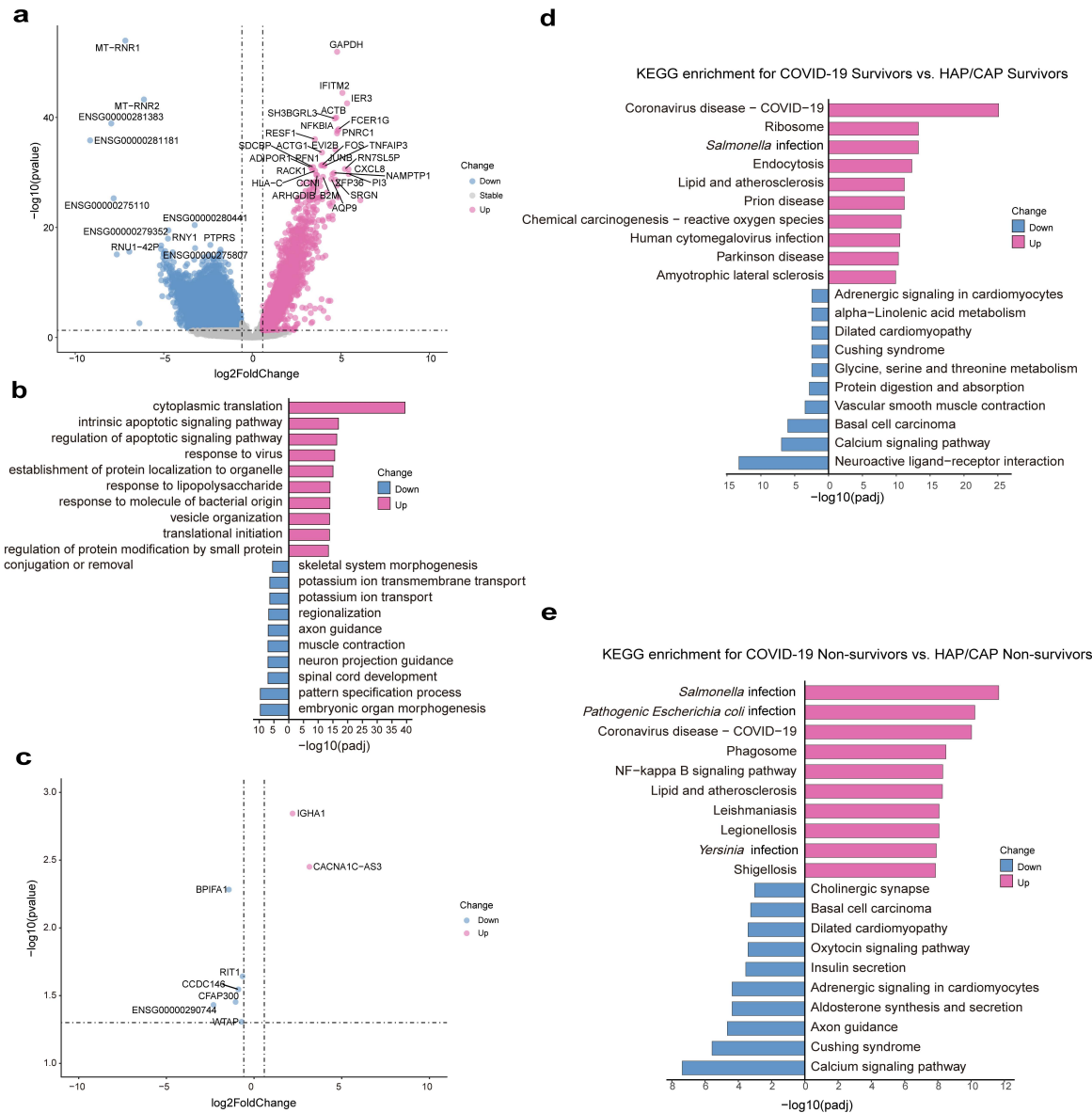


Figure. S1. Gene Differential Expression Analysis in BALF of HAP/CAP Patients.

(a) Volcano plot is presented to illustrate differential gene expression between invasive ventilated COVID-19 patients and HAP/CAP patients. The survival group exhibited up-regulation of 2324 genes and down-regulation of 33668 genes.

(b) Gene Ontology (Biological Process) enrichment analysis results for the differentially expressed genes identified in (a).

(c) The volcano plot shows the shared differentially expressed genes in HAP/CAP patients in both the survival and non-survival groups as well as the COVID-19 patient group, which survived, with matching directions of the differential expression. Down: down-regulated in survival group, Up: up-regulated in survival group.

(d) KEGG enrichment analysis for the differentially expressed genes identified in COVID-19 Survivors vs. HAP/CAP Survivors.

(e) KEGG enrichment analysis for the differentially expressed genes identified in COVID-19 Non-survivors vs. HAP/CAP Non-survivors. HAP/CAP patients (n=27), COVID-19 patients (n=63), non-survivors of the invasive ventilated COVID-19 patients (n=45), survivors of the invasive ventilated COVID-19 patients (n=18).

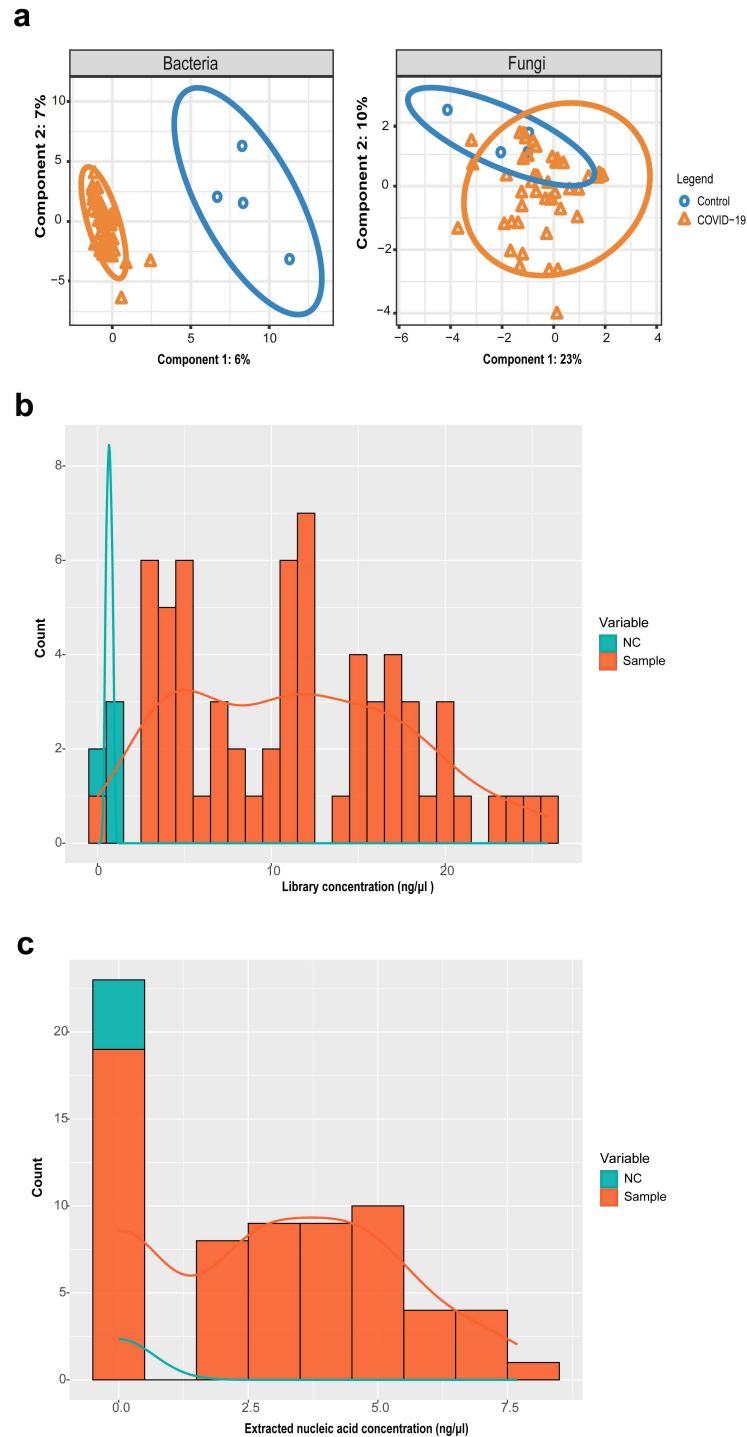


Figure. S2. Comparison of BALF samples with Negative Controls.

(a) Partial least squares discriminant analysis (PLS-DA) of COVID-19 and negative controls based on bacterial and fungal relative abundance. The left and right panels show significant differences in bacterial and fungal composition between COVID-19 and the negative reference, respectively. (b) The Library concentration of BALF samples with negative controls.

(c) The Extracted nucleic acid concentration of BALF samples and negative controls. COVID-19 patients (n=64), Negative Controls(n=4).

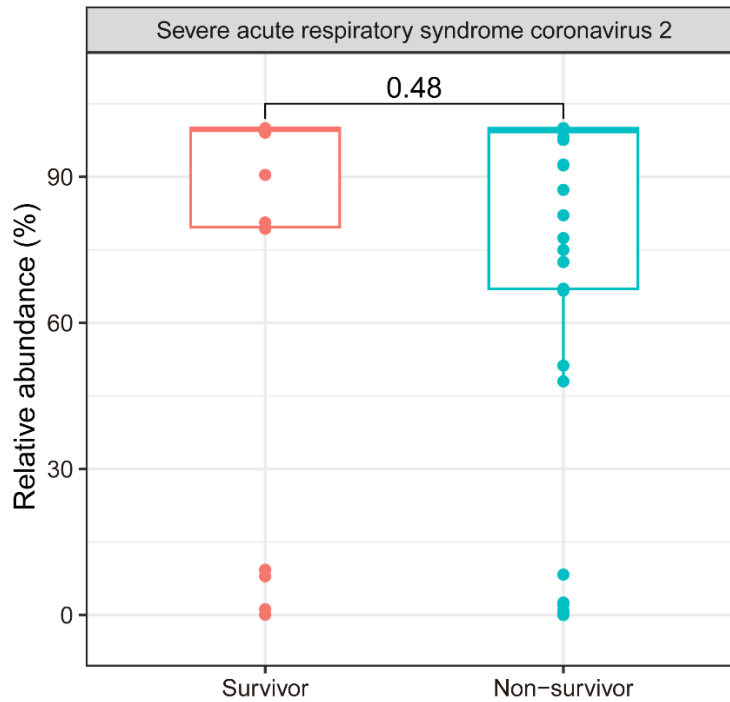


Figure. S3. Comparison of SARS-CoV-2 abundance in survivors and non-survivors of invasive ventilated COVID-19.

Box plot of SARS-CoV-2 relative abundance in survivors and non-survivors of invasive ventilated COVID-19. One-tailed wilcoxon rank-sum test was used for significance statistics. COVID-19 patients (n=63), non-survivors of the invasive ventilated COVID-19 patients (n=45), survivors of the invasive ventilated COVID-19 patients (n=18).

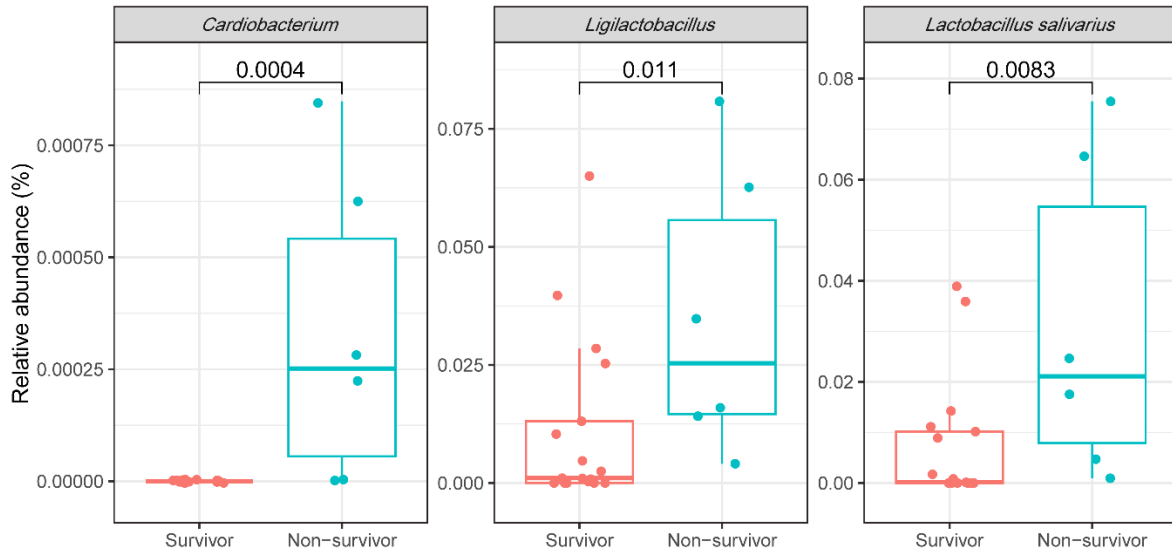


Figure. S4. Significantly different bacteria between survivors and non-survivors of HAP/CAP patients.

One-tailed Wilcoxon rank-sum test was used for significance statistics. HAP/CAP patients (n=27), non-survivors of the HAP/CAP patients (n=7), survivors of the HAP/CAP patients (n=20).

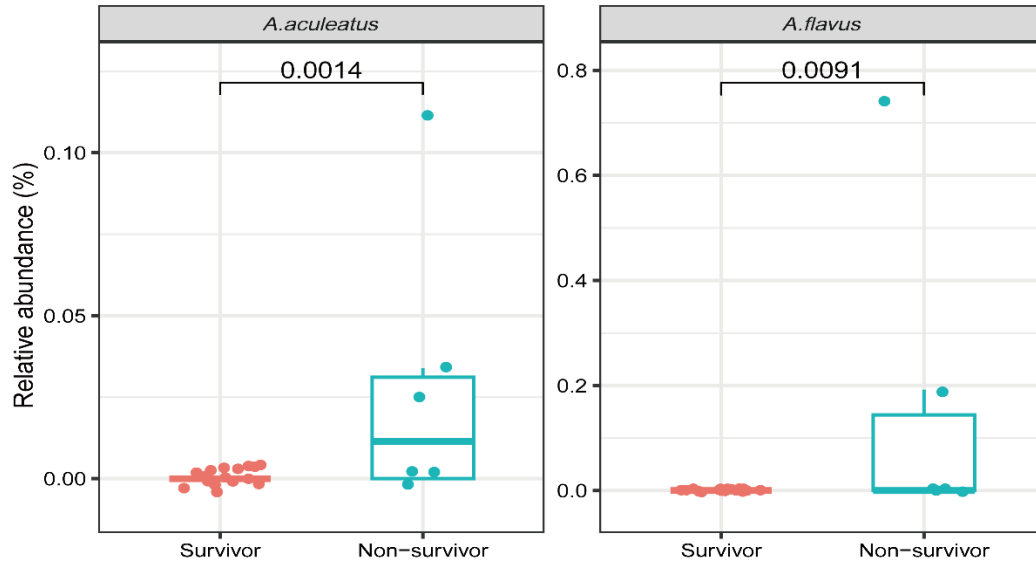


Figure. S5. Significantly different fungi between survivors and non-survivors of HAP/CAP patients.

One-tailed wilcoxon rank-sum test was used for significance statistics. HAP/CAP patients (n=27), non-survivors of the HAP/CAP patients (n=7), survivors of the HAP/CAP patients (n=20).



Figure. S6. Heatmaps of cytokine levels with the common toxicity factors.

Spearman correlation coefficients with adjusted p-values <0.05 are marked with an asterisk. COVID-19 patients (n=63).

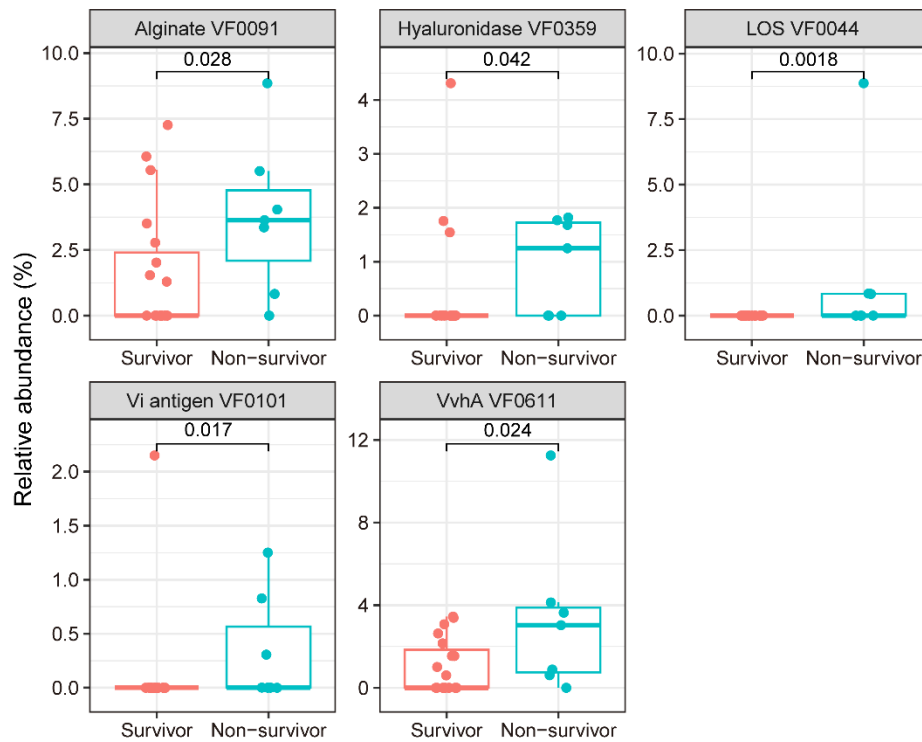


Figure. S7. Significantly different virulence factors between survivors and non-survivors of HAP/CAP patients.

One-tailed wilcoxon rank-sum test was used for significance statistics. HAP/CAP patients (n=27), non-survivors of the HAP/CAP patients (n=7), survivors of the HAP/CAP patients (n=20).

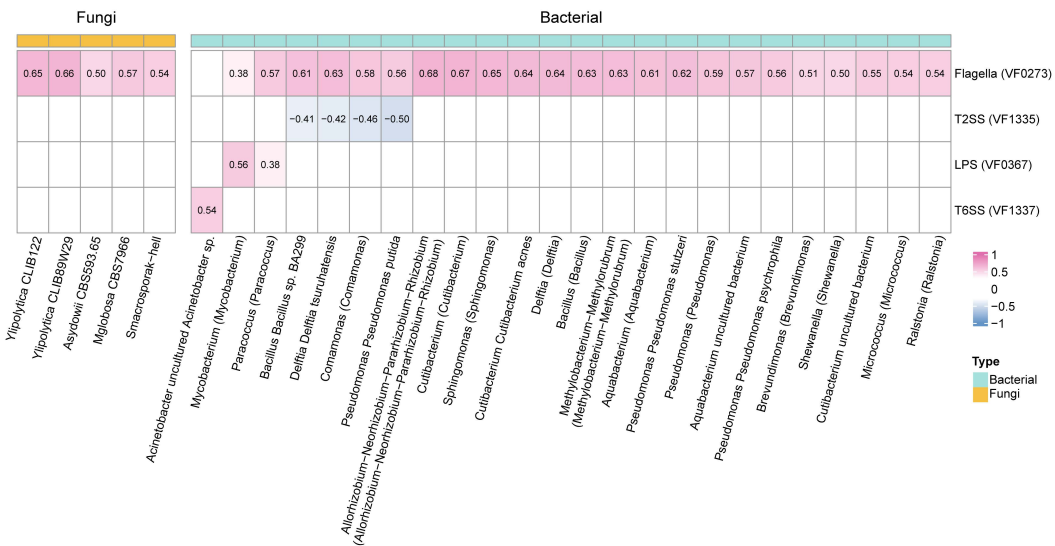


Figure. S8. Correlation analysis between bacterial, fungi gene expression and virulence factors.

Heatmap demonstrating correlation analysis between bacterial, fungi gene expression and virulence factors in invasive ventilated COVID-19 patients. The color-coded positions indicate adjusted p -values < 0.05 and the numbers within each grid represent Spearman correlation coefficients. Only absolute correlation coefficients greater than 0.5 are displayed. COVID-19 patients ($n=63$).

Table S1. Comparison of two cohorts

	HAP/CAP(n=27) Median (IQR)	COVID-19(n=64) Median (IQR)	<i>P</i> value
Age, yr	71.00 (24.00)	80.00 (15.00)	0.08
Sex			0.28
Male, n (%)	23.00(85.19)	48.00(75.00)	
Female, n (%)	4.00(14.81)	16.00(25.00)	

HAP/CAP:Hospital/Community Acquired Pneumonia,IQR=interquartile range, *P* values were evaluated by Mann-Whitney test or Chi-square test ,Two-tailed degree of significance between groups was set at $P < 0.05$.

Table S2. The statistics results of genome assembly of the SARS-CoV-2 strains

Samples	Contigs	Largest contig (bp)	Total length (bp)	GC (%)
s10.fa	1	29984	29984	37.88
s11.fa	1	29747	29747	37.85
s12.fa	1	29871	29871	37.93
s14.fa	1	29870	29870	37.86
s16.fa	1	33717	33717	36.71
s18.fa	1	24628	24628	37.37
s1.fa	1	29943	29943	37.89
s20.fa	1	29870	29870	37.82
s22.fa	1	29869	29869	37.81
s23.fa	1	29897	29897	37.92
s24.fa	1	29870	29870	37.86
s25.fa	1	29982	29982	37.83
s28.fa	1	29870	29870	37.82
s29.fa	1	29897	29897	38.03
s2.fa	1	30006	30006	37.84
s31.fa	1	23233	23233	37.58
s34.fa	1	29870	29870	37.88
s35.fa	1	28255	28255	37.49
s3.fa	1	29795	29795	37.86
s4.fa	1	29930	29930	37.89
s5.fa	1	29870	29870	37.82
s6.fa	1	29882	29882	37.82
s7.fa	2	23279	41441	37.93
s8.fa	1	29795	29795	37.87
s9.fa	1	29935	29935	37.87
ss11.fa	1	23403	23403	37.57
ss16.fa	1	29839	29839	37.85
ss18.fa	1	23425	23425	37.55
ss27.fa	1	29861	29861	37.86
ss28.fa	1	29896	29896	37.88
ss4.fa	1	29876	29876	38.16
ss9.fa	1	29862	29862	37.83

Table S3. The statistics results of single nucleotide polymorphism (SNPs) identified in our study

P O S	R E F	A L E L	Q U A L	FI L T E R	INFO	FO RM AT	FOR MAT_ value	TY PE	Reported in 682 genomes
44	C	T	10 11 2.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=371;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.33;SOR=0.855	GT :A D: DP: GQ :PL	1/1:0, 357:35 7:99:1 0126,1 071,0	BA .5	yes
21 0	G	T	42 37. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.200e+00;DP=888;ExcessHet=0.0000;FS=0.588;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.83;ReadPosRankSum=2.67;SOR=0.614	GT :A D: DP: GQ :PL	0/1:63 0,247: 877:99 :4245, 0,2546 0	BA .5	yes
21 3	G	T	65 30 2.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=1609;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.36;SOR=0.928	GT :A D: DP: GQ :PL	1/1:0, 1586:1 586:99 :65316 ,4770, 0	BA .5	yes
24 1	C	T	20 55 05. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5558;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.36;SOR=0.818	GT :A D: DP: GQ :PL	1/1:0, 5405:5 407:99 :20551 9,1624 6,0	BA .5	yes
40 7	G	T	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	GT :A D: DP: GQ :PL	1/1:0, 2:2:6: 49,6,0	BA .5	no
41 0	G	A	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	GT :A D: DP: GQ :PL	1/1:0, 2:2:6: 49,6,0	BA .5	no

628	T	G	43.64	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-4.970e-01;DP=15;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.36;ReadPosRankSum=-2.093e+00;SOR=0.551	GT :A D: 0 1:11, 2:13:5 DP: 1:0 1:6 GQ 28_T_ :PG G:51,0 T:P ,456:6 ID: 28 PL: PS GT	BA .5	no
631	T	A	43.64	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=13;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.36;ReadPosRankSum=-2.093e+00;SOR=0.551	GT :A D: 0 1:11, 2:13:5 DP: 1:0 1:6 GQ 28_T_ :PG G:51,0 T:P ,456:6 ID: 28 PL: PS GT	BA .5	no
633	T	G	43.64	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=13;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.36;ReadPosRankSum=-2.102e+00;SOR=0.551	GT :A D: 0 1:11, 2:13:5 DP: 1:0 1:6 GQ 28_T_ :PG G:51,0 T:P ,456:6 ID: 28 PL: PS GT	BA .5	no
638	A	T	35.48	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=25.36;SOR=1.609	GT :A D: 1 1:0,1 :1:3:1 DP: 1:630_ GQ T_TG :PG CC:45 T:P ,3,0:63 ID: 0 PL: PS GT	BA .5	no
640	G	A	35.48	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.73;SOR=1.609	GT :A D: 1 1:0,1 :1:3:1 DP: 1:630_ GQ T_TG :PG CC:45	BA .5	no

64	C	G	35.	P	AC=2;AF=1.00;AN=2;DP=	T:P	,3,0:63		
3			48	A	1;ExcessHet=0.0000;FS=0.0	ID:	0		
				S	00;MLEAC=1;MLEAF=0.5	PL:			
				S	00;MQ=60.00;QD=30.97;S	PS			
					OR=1.609	GT			
						:A			
						D:	1 1:0,1		
						DP:	:1:3:1		
						GQ	1:630_	BA	
						:PG	T_TG	.5	no
						T:P	CC:45		
						ID:	,3,0:63		
						PL:	0		
						PS			
					AC=2;AF=1.00;AN=2;Base				
					QRankSum=4.07;DP=5984;	GT	1/1:1,		
67	T	G	22	P	ExcessHet=0.0000;FS=0.00	:A	5811:5		
0			86	A	0;MLEAC=2;MLEAF=1.00;	D:	829:99	BA	
			12.	S	MQ=60.00;MQRankSum=-	DP:	:22862	.5	yes
			1	S	4.400e-	GQ	6,1748		
					02;QD=28.73;ReadPosRank	:PL	4,0		
					Sum=1.39;SOR=0.353				
						GT	1/1:0,		
						:A	1111:1		
70	C	T	31	P	AC=2;AF=1.00;AN=2;DP=	D:	111:99	BA	
6			26	A	1140;ExcessHet=0.0000;FS	DP:	:31275	.5	no
			1.0	S	=0.000;MLEAC=2;MLEAF	GQ	,3332,		
			6	S	=1.00;MQ=60.00;QD=28.14	:PL	0		
					;SOR=0.739	GT			
						:A			
						D:	1 1:0,1		
						DP:	:1:3:1		
						GQ	1:767_	BA	
						:PG	G_A:4	.5	no
						T:P	5,3,0:7		
						ID:	67		
						PL:			
						PS			
						GT			
						:A	1 1:0,1		
						D:	:1:3:1		
						DP:	1:767_	BA	
77	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=	GQ	G_A:4	.5	no
1			48	A	1;ExcessHet=0.0000;FS=0.0	:PG	5,3,0:7		
				S	00;MLEAC=1;MLEAF=0.5	T:P	67		
				S	00;MQ=60.00;QD=30.97;S	ID:			
					OR=1.609				

85	T	C	32.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-9.670e-	PL: PS			
1			64	A	01;DP=3;ExcessHet=0.0000	GT			
				S	;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQR	:A 0/1:1, D: 2:3:33	BA		no
				S	ankSum=0.00;QD=10.88;ReadPosRankSum=0.967;SOR=0.223	DP: :40,0,3 GQ 3	.5		
						:PL			
10	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=	GT			
12			48	A	1;ExcessHet=0.0000;FS=0.0	:A 1 1:0,1 D: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	DP: 1:1007	BA		no
				S	00;MQ=60.00;QD=30.62;SOR=1.609	GQ _AG_ :PG A:45,3	.5		
						T:P ,0:100 ID: 7			
						PL:			
						PS			
						GT			
10	G	C	35.	P	AC=2;AF=1.00;AN=2;DP=	:A 1 1:0,1 D: :1:3:1			
13			48	A	1;ExcessHet=0.0000;FS=0.0	DP: 1:1007	BA		no
				S	00;MLEAC=1;MLEAF=0.5	GQ _AG_ :PG A:45,3	.5		
				S	00;MQ=60.00;QD=28.17;SOR=1.609	T:P ,0:100 ID: 7			
						PL:			
						PS			
						GT			
10	A	T	35.	P	AC=2;AF=1.00;AN=2;DP=	:A 1 1:0,1 D: :1:3:1			
15			48	A	1;ExcessHet=0.0000;FS=0.0	DP: 1:1007	BA		no
				S	00;MLEAC=1;MLEAF=0.5	GQ _AG_ :PG A:45,3	.5		
				S	00;MQ=60.00;QD=26.80;SOR=1.609	T:P ,0:100 ID: 7			
						PL:			
						PS			
10	G	T	36	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-	GT 0/1:66			
85			85.	A	1.051e+00;DP=897;Excess	:A 5,224:			
			64	S	Het=0.0000;FS=0.610;MLE	D: 889:99	BA		yes
				S	AC=1;MLEAF=0.500;MQ=	DP: :3693,	.5		
					60.00;MQRankSum=0.00;Q	GQ 0,1658			
						:PL 0			

D=4.15;ReadPosRankSum=0.274;SOR=0.762

12 07	A T	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=26.00;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1207 BA :PG _A_T: .5 no T:P 45,3,0 ID: 1207 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1207 BA :PG _A_T: .5 no T:P 45,3,0 ID: 1207 PL: PS GT :A D: 0 1:3,2 DP: :5:75: GQ 0 1:14 BA :PG 68_T_ .5 no G:75,0 T:P ,100:1 ID: 468 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1495 BA :PG _G_A: .5 no T:P 45,3,0 ID: 1495 PL: PS GT 1 1:0,1 :A :1:3:1 BA D: 1:1495 .5 no DP: _G_A:
12 10	G A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=30.02;SOR=1.609	
14 68	T G	67. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=5;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=13.53;ReadPosRankSum=-6.740e-01;SOR=0.368	
14 95	G A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=31.98;SOR=1.609	
14 98	C T	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=31.98;SOR=1.609	

				00;MQ=60.00;QD=27.51;S OR=1.609	GQ 45,3,0: :PG 1495 T:P ID: PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1495 BA :PG _G_A: .5 no T:P 45,3,0: ID: 1495 PL: PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:15 BA :PG 09_G_ .5 no A:78,0 T:P ,78:15 ID: 09 PL: PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:15 BA :PG 09_G_ .5 no A:78,0 T:P ,78:15 ID: 09 PL: PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:15 BA :PG 09_G_ .5 no A:78,0 T:P ,78:15 ID: 09 PL: PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:15 BA :PG 09_G_ .5 no A:78,0 T:P ,78:15 ID: 09 PL: PS
14 99	T C	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=29.11;S OR=1.609	
15 09	G A	70. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=4;Ex cessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=17.66;ReadPosRank Sum=1.38;SOR=0.693	
15 12	G C	70. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=4;Ex cessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=17.66;ReadPosRank Sum=- 1.383e+00;SOR=0.693	
15 15	A T	70. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=4;Ex cessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=17.66;ReadPosRank Sum=- 1.383e+00;SOR=0.693	

16 27	C T	20 50 94. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=1.38;DP=5876; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=30.97;ReadPosRank Sum=2.85;SOR=0.381	GT :A D: DP: GQ :PL	1/1:5, 3760:3 781:99 :20510 8,1590 0,0	BA .5	yes
17 99	A G	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=28.08;S OR=1.609	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A	1 1:0,1 :1:3:1 1:1799 _A_G: 45,3,0: 1799	BA .5	no
18 01	A T	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=23.23;S OR=1.609	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A	1 1:0,1 :1:3:1 1:1799 _A_G: 45,3,0: 1799	BA .5	no
19 17	C T	30 1.0 6	P A S S	AC=2;AF=1.00;AN=2;DP= 13;ExcessHet=0.0000;FS=0. 000;MLEAC=2;MLEAF=1. 00;MQ=60.00;QD=27.37;S OR=1.270	GT :A D: DP: GQ :PL GT :A	1/1:0, 11:11: 33:315 ,33,0	BA .5	no
22 45	C A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=27.24;S OR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A	1 1:0,2 :2:6:1 1:2245 _C_A: 90,6,0: 2245	BA .5	no
22 47	G T	78. 32	P A	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5	GT :A D:	1 1:0,2 :2:6:1 1:2245	BA .5	no

			S	00;MQ=60.00;QD=28.20;S	DP: _C_A:		
			S	OR=0.693	GQ 90,6,0:		
					:PG 2245		
					T:P		
					ID:		
					PL:		
					PS		
					GT		
					:A		
					D: 1 1:0,2		
22	G A	78.	P	AC=2;AF=1.00;AN=2;DP=	DP: :2:6:1		
50		32	A	2;ExcessHet=0.0000;FS=0.0	GQ 1:2245	BA	no
			S	00;MLEAC=1;MLEAF=0.5	:PG _C_A:	.5	
			S	00;MQ=60.00;QD=25.00;S	T:P 90,6,0:		
				OR=0.693	ID: 2245		
					PL:		
					PS		
					GT		
					:A		
					D: 1 1:0,2		
22	C G	78.	P	AC=2;AF=1.00;AN=2;DP=	DP: :2:6:1		
52		32	A	2;ExcessHet=0.0000;FS=0.0	GQ 1:2245	BA	no
			S	00;MLEAC=1;MLEAF=0.5	:PG _C_A:	.5	
			S	00;MQ=60.00;QD=29.56;S	T:P 90,6,0:		
				OR=0.693	ID: 2245		
					PL:		
					PS		
					GT		
					:A		
					D: 1 1:0,1		
24	A T	35.	P	AC=2;AF=1.00;AN=2;DP=	DP: :1:3:1		
44		48	A	1;ExcessHet=0.0000;FS=0.0	GQ 1:2444	BA	no
			S	00;MLEAC=1;MLEAF=0.5	:PG _A_T:	.5	
			S	00;MQ=60.00;QD=29.03;S	T:P 45,3,0:		
				OR=1.609	ID: 2444		
					PL:		
					PS		
					GT		
					:A 1 1:0,1		
					D: :1:3:1		
24	C T	35.	P	AC=2;AF=1.00;AN=2;DP=	DP: 1:2450	BA	no
50		48	A	1;ExcessHet=0.0000;FS=0.0	GQ _C_T:	.5	
			S	00;MLEAC=1;MLEAF=0.5	:PG 45,3,0:		
			S	00;MQ=60.00;QD=28.73;S	T:P 2450		
				OR=1.609	ID:		

25	A	T	35.	P	AC=2;AF=1.00;AN=2;DP=	PL:				
42			48	A	1;ExcessHet=0.0000;FS=0.0	PS				
				S	00;MLEAC=1;MLEAF=0.5	GT				
				S	00;MQ=60.00;QD=34.42;S	:A	1 1:0,1			
					OR=1.609	D:	:1:3:1			
						DP:	1:2532	BA		yes
						GQ	_TTG	.5		
						:PG	TC_T:			
						T:P	45,3,0:			
						ID:	2532			
						PL:				
						PS				
					AC=2;AF=1.00;AN=2;Base					
					QRankSum=-	GT	1/1:6,			
					1.562e+00;DP=5481;Excess	:A	5249:5			
27	C	T	20	P	Het=0.0000;FS=0.000;MLE	D:	300:99	BA		yes
10			17.	A	AC=2;MLEAF=1.00;MQ=6	DP:	:20103	.5		
			1	S	0.00;MQRankSum=-2.840e-	GQ	1,1487			
				S	01;QD=27.24;ReadPosRank	:PL	4,0			
					Sum=-					
					1.641e+00;SOR=0.434					
					AC=2;AF=1.00;AN=2;Base					
					QRankSum=-5.310e-	GT	1/1:1,			
					01;DP=5275;ExcessHet=0.0	:A	4995:5			
27	C	T	19	P	000;FS=0.000;MLEAC=2;	D:	000:99	BA		yes
90			31	A	MLEAF=1.00;MQ=60.00;M	DP:	:19313	.5		
			22.	S	QRankSum=-5.690e-	GQ	6,1514			
			1	S	01;QD=28.20;ReadPosRank	:PL	7,0			
					Sum=1.75;SOR=0.262					
					AC=1;AF=0.500;AN=2;Bas	GT				
					eQRankSum=-6.740e-	:A	0 1:1,1			
					01;DP=2;ExcessHet=0.0000	D:	:2:39:			
28	C	A	31.	P	;FS=0.000;MLEAC=1;MLE	DP:	0 1:28	BA		no
22			64	A	AF=0.500;MQ=60.00;MQR	GQ	21_A_	.5		
				S	ankSum=0.00;QD=15.82;Re	:PG	AT:39			
				S	adPosRankSum=-6.740e-	T:P	,0,39:2			
					01;SOR=0.693	ID:	821			
						PL:				
						PS				
					AC=2;AF=1.00;AN=2;Base	GT	1/1:2,			
					QRankSum=-6.890e-	:A	5586:5			
30	C	T	21	P	01;DP=5743;ExcessHet=0.0	D:	588:99	BA		yes
37			48	A	000;FS=0.000;MLEAC=2;	DP:	:21485	.5		
			44.	S	MLEAF=1.00;MQ=60.00;M	GQ	8,1675			
			1	S	QRankSum=-5.660e-	:PL	4,0			

				01;QD=25.00;ReadPosRank Sum=2.26;SOR=0.142				
35	T	C	64.	P	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=6;Ex cessHet=0.0000;FS=0.000;	GT		
37			64	A	MLEAC=1;MLEAF=0.500;	:A	0 1:4,2	
				S	MQ=60.00;MQRankSum=0.	D:	:6:72:	
				S	00;QD=10.77;ReadPosRank Sum=-	DP:	0 1:35	BA
					1.834e+00;SOR=0.693	GQ	37_T_	.5
						:PG	C:72,0	no
						T:P	,162:3	
						ID:	537	
						PL:		
						PS		
						GT		
35	G	A	64.	P	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=6;Ex cessHet=0.0000;FS=0.000;	:A	0 1:4,2	
39			64	A	MLEAC=1;MLEAF=0.500;	D:	:6:72:	
				S	MQ=60.00;MQRankSum=0.	DP:	0 1:35	BA
				S	00;QD=10.77;ReadPosRank Sum=-	GQ	37_T_	.5
					1.834e+00;SOR=0.693	:PG	C:72,0	no
						T:P	,162:3	
						ID:	537	
						PL:		
						PS		
						GT		
37	C	A	37.	P	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0	:A	1 1:0,	BA
73			32	A	00;MLEAC=1;MLEAF=0.5	D:	2:2:6:	.5
				S	00;MQ=60.00;QD=18.66;S	DP:	49,6,0	no
				S	OR=0.693	GQ		
						:PL		
						GT		
						:A		
						D:	1 1:0,1	
39	T	A	35.	P	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1	BA
49			48	A	00;MLEAC=1;MLEAF=0.5	GQ	1:3949	.5
				S	00;MQ=60.00;QD=28.53;S	:PG	_T_A:	no
				S	OR=1.609	T:P	45,3,0:	
						ID:	3949	
						PL:		
						PS		
						GT		
						:A	1 1:0,1	
39	G	A	35.	P	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0	D:	:1:3:1	BA
50			48	A	00;MLEAC=1;MLEAF=0.5	DP:	1:3949	.5
				S	00;MQ=60.00;QD=27.23;S	GQ	_T_A:	no
				S	OR=1.609	:PG	45,3,0:	
						T:P	3949	
						ID:		

39	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=	PL:			
67			48	A	1;ExcessHet=0.0000;FS=0.0	PS			
				S	00;MLEAC=1;MLEAF=0.5	GT			
				S	00;MQ=60.00;QD=28.17;S	:A			
					OR=1.609	D: 1 1:0,1			
						DP: :1:3:1			
						GQ 1:3967	BA		
						:PG _T_A:	.5	no	
						T:P 45,3,0:			
						ID: 3967			
						PL:			
						PS			
						GT			
						:A			
39	G	T	35.	P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
69			48	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	GQ 1:3967	BA		
				S	00;MQ=60.00;QD=26.80;S	:PG _T_A:	.5	no	
					OR=1.609	T:P 45,3,0:			
						ID: 3967			
						PL:			
						PS			
						GT			
						:A			
39	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
70			48	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	GQ 1:3967	BA		
				S	00;MQ=60.00;QD=26.00;S	:PG _T_A:	.5	no	
					OR=1.609	T:P 45,3,0:			
						ID: 3967			
						PL:			
						PS			
						GT			
						:A			
39	G	A	35.	P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
71			48	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	GQ 1:3967	BA		
				S	00;MQ=60.00;QD=30.02;S	:PG _T_A:	.5	no	
					OR=1.609	T:P 45,3,0:			
						ID: 3967			
						PL:			
						PS			
						GT			
						:A			
39	A	G	78.	P	AC=2;AF=1.00;AN=2;DP=	GT 1 1:0,2			
89			32	A	2;ExcessHet=0.0000;FS=0.0	:A :2:6:1	BA		
				S	00;MLEAC=1;MLEAF=0.5	D: 1:3989	.5	no	
				S		DP: _A_G:			

				00;MQ=60.00;QD=31.98;S OR=0.693	GQ 90,6,0: :PG 3989 T:P ID: PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:3989 BA :PG _A_G: .5 no T:P 90,6,0: ID: 3989 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:3989 BA :PG _A_G: .5 no T:P 90,6,0: ID: 3989 PL: PS
39 92	C T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=29.11;S OR=0.693	
39 96	A C	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=28.08;S OR=0.693	
41 84	G A	19 63 61. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=-9.850e- 01;DP=5373;ExcessHet=0.0 000;FS=0.000;MLEAC=2; MLEAF=1.00;MQ=60.00;M QRankSum=0.00;QD=29.56 ;ReadPosRankSum=0.770;S OR=0.870	GT 1/1:2, :A 4481:4 D: 485:99 BA DP: :19637 .5 yes GQ 5,1546 :PL 0,0
42 99	T G	67. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=-5.240e- 01;DP=5;ExcessHet=0.0000 ;FS=0.000;MLEAC=1;MLE AF=0.500;MQ=60.00;MQR ankSum=0.00;QD=13.53;Re adPosRankSum=- 1.645e+00;SOR=0.368	GT :A D: 0 1:3,2 DP: :5:75: 0 1:42 GQ 99_T_ BA :PG G:75,0 .5 no T:P ,120:4 ID: 299 PL: PS
43 21	C T	18 51	P A	AC=2;AF=1.00;AN=2;Base QRankSum=4.10;DP=5184;	GT 1/1:16 BA :A ,4975: .5 yes

			32.	S	ExcessHet=0.0000;FS=0.00	D:	4998:9		
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	9:1851		
					MQ=60.00;MQRankSum=0.	GQ	46,141		
					141;QD=30.62;ReadPosRan	:PL	14,0		
					kSum=5.64;SOR=0.130				
						GT			
						:A	1 1:0,4		
						D:	490:44		
						DP:	90:99:		
43	C	A	17	P	AC=2;AF=1.00;AN=2;DP=	DP:	1 1:43	BA	no
91			80	A	4576;ExcessHet=0.0000;FS	GQ	21_C_	.5	
			83.	S	=0.000;MLEAC=2;MLEAF	:PG	T:178		
			1	S	=1.00;MQ=60.00;QD=29.56	T:P	097,13		
					;SOR=0.986	ID:	500,0:		
						PL:	4321		
						PS			
						GT			
					AC=1;AF=0.500;AN=2;Bas	:A	0 1:1,1		
					eQRankSum=-6.740e-	:2:39:			
					01;DP=2;ExcessHet=0.0000	D:	0 1:44		
44	G	C	31.	P	;FS=0.000;MLEAC=1;MLE	DP:	46_A_	BA	no
54			64	A	AF=0.500;MQ=60.00;MQR	GQ	AACT	.5	
				S	ankSum=0.00;QD=15.82;Re	:PG	GTGA		
				S	adPosRankSum=-6.740e-	T:P	GTC:3		
					01;SOR=0.693	ID:	9,0,39:		
						PL:	4446		
						PS			
						GT			
						:A			
						D:	1 1:0,2		
45	G	C	78.	P	AC=2;AF=1.00;AN=2;DP=	DP:	:2:6:1	BA	no
02			32	A	2;ExcessHet=0.0000;FS=0.0	GQ	1:4502	.5	
				S	00;MLEAC=1;MLEAF=0.5	:PG	_G_C:		
				S	00;MQ=60.00;QD=29.52;S	T:P	90,6,0:		
					OR=0.693	ID:	4502		
						PL:			
						PS			
						GT			
						:A			
						D:	1 1:0,2		
45	G	A	78.	P	AC=2;AF=1.00;AN=2;DP=	DP:	:2:6:1	BA	no
05			32	A	2;ExcessHet=0.0000;FS=0.0	GQ	1:4502	.5	
				S	00;MLEAC=1;MLEAF=0.5	:PG	_G_C:		
				S	00;MQ=60.00;QD=33.47;S	T:P	90,6,0:		
					OR=0.693	ID:	4502		
						PL:			
						PS			

45	G	A	78.	P	AC=2;AF=1.00;AN=2;DP=	GT			
11			32	A	2;ExcessHet=0.0000;FS=0.0	:A			
				S	00;MLEAC=1;MLEAF=0.5	D: 1 1:0,2			
				S	00;MQ=60.00;QD=32.91;S	DP: :2:6:1			
					OR=0.693	GQ 1:4502	BA	no	
						:PG _G_C:	.5		
						T:P 90,6,0:			
						ID: 4502			
						PL:			
						PS			
46	T	A	64.	P	AC=1;AF=0.500;AN=2;Bas	GT			
95			64	A	eQRankSum=0.00;DP=6;Ex	:A 0/1:4,			
				S	cessHet=0.0000;FS=0.000;	D: 2:6:72	BA	no	
				S	MQ=60.00;MQRankSum=0.	DP: :72,0,1	.5		
					00;QD=10.77;ReadPosRank	GQ 62			
					Sum=-	:PL			
					1.834e+00;SOR=0.693				
47	C	G	70.	P	AC=1;AF=0.500;AN=2;DP	GT	0 1:2,2		
03			64	A	=4;ExcessHet=0.0000;FS=0.	:A :4:38:			
				S	000;MLEAC=1;MLEAF=0.	D: 0 1:46			
				S	500;MQ=60.00;MQRankSu	DP: 99_T_			
					m=0.00;QD=17.66;SOR=0.	GQ TTGA	BA	no	
					693	:PG GGG	.5		
						T:P AAA			
						ID: ACA			
						PL: GGG:			
						PS 78,0,3			
47	C	T	78.	P	AC=2;AF=1.00;AN=2;DP=	GT	1 1:0,2		
04			32	A	2;ExcessHet=0.0000;FS=0.0	:A :2:6:1			
				S	00;MLEAC=1;MLEAF=0.5	D: 1:4699			
				S	00;MQ=60.00;QD=31.45;S	DP: _T_T			
					OR=0.693	GQ TGAG	BA	no	
						:PG GGA	.5		
						T:P AAA			
						ID: CAG			
						PL: GG:90			
						PS ,6,0:46			
47	G	C	78.	P	AC=2;AF=1.00;AN=2;DP=	GT	1 1:0,2		
06			32	A	2;ExcessHet=0.0000;FS=0.0	:A :2:6:1			
				S	00;MLEAC=1;MLEAF=0.5	D: 1:4699	BA	no	
				S	00;MQ=60.00;QD=33.27;S	DP: _T_T	.5		
					OR=0.693	GQ TGAG			
						:PG GGA			

									T:P	AAA			
									ID:	CAG			
									PL:	GG:90			
									PS	,6,0:46			
										99			
									GT				
48	C	T	31.	P					:A	0/1:13			
15			64	A	AC=1;AF=0.500;AN=2;Bas				D:	,2:15:	BA		
				S	eQRankSum=2.36;DP=15;E				DP:	39:39,	.5		no
				S	xcessHet=0.0000;FS=3.310;				GQ	0,315			
					MLEAC=1;MLEAF=0.500;				:PL				
					MQ=60.00;MQRankSum=0.								
					00;QD=2.11;ReadPosRankS								
					um=1.62;SOR=2.279								
									GT	0 1:2,2			
									:A	:4:78:			
49	A	G	70.	P	AC=1;AF=0.500;AN=2;Bas				D:	0 1:49			
26			64	A	eQRankSum=0.00;DP=4;Ex				DP:	22_T_			
				S	cessHet=0.0000;FS=0.000;				GQ	TGAT	BA		
				S	MLEAC=1;MLEAF=0.500;				:PG	TTCA	.5		no
					MQ=60.00;MQRankSum=0.				T:P	GAG			
					00;QD=17.66;ReadPosRank				ID:	AGC:			
					Sum=-				PL:	78,0,7			
					1.383e+00;SOR=0.693				PS	8:4922			
									GT	0 1:2,2			
									:A	:4:78:			
49	A	G	70.	P	AC=1;AF=0.500;AN=2;Bas				D:	0 1:49			
28			64	A	eQRankSum=0.00;DP=6;Ex				DP:	22_T_			
				S	cessHet=0.0000;FS=0.000;				GQ	TGAT	BA		
				S	MLEAC=1;MLEAF=0.500;				:PG	TTCA	.5		no
					MQ=60.00;MQRankSum=0.				T:P	GAG			
					00;QD=17.66;ReadPosRank				ID:	AGC:			
					Sum=-				PL:	78,0,7			
					1.383e+00;SOR=0.693				PS	8:4922			
									GT	0 1:2,2			
									:A	:4:78:			
53	C	T	65.	P	AC=1;AF=0.500;AN=2;Bas				D:	0 1:49			
10			64	A	eQRankSum=0.00;DP=6;Ex				DP:	22_T_			
				S	cessHet=0.0000;FS=0.000;				GQ	TGAT	BA		
				S	MLEAC=1;MLEAF=0.500;				:PG	TTCA	.5		no
					MQ=60.00;MQRankSum=0.				T:P	GAG			
					00;QD=10.94;ReadPosRank				ID:	AGC:			
					Sum=0.598;SOR=0.693				PL:	78,0,7			
									PS	8:4922			
									GT				
									:A	0/1:3,			
									D:	3:6:73	BA		
									DP:	:73,0,7	.5		no
									GQ	3			
									:PL				
									GT	0 1:7,2			
									:A	:9:63:			
53	C	T	55.	P	AC=1;AF=0.500;AN=2;Bas				D:	0 1:53			
14			64	A	eQRankSum=-2.820e-				DP:	14_C_			
				S	01;DP=9;ExcessHet=0.0000				GQ	T:63,0	BA		
				S	;FS=0.000;MLEAC=1;MLE				:PG	,288:5	.5		no
					AF=0.500;MQ=60.00;MQR				T:P	314			
					ankSum=0.00;QD=6.18;Rea								

				dPosRankSum=-8.120e-01;SOR=0.495	ID: PL: PS GT			
55 19	T G	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	:A D: DP: GQ :PL GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT	1 1:0, 2:2:6: 49,6,0	BA .5	no
55 74	A G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=27.08;SOR=0.693	:A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT	1 1:0,2 :2:6:1 1:5566 _T_T G:90,6 ,0:556 6	BA .5	no
55 75	C T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=25.42;SOR=0.693	:A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT	1 1:0,2 :2:6:1 1:5566 _T_T G:90,6 ,0:556 6	BA .5	no
55 76	A G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=27.65;SOR=0.693	:A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT	1 1:0,2 :2:6:1 1:5566 _T_T G:90,6 ,0:556 6	BA .5	no
57 65	G A	25 1.6 4	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=1.79;DP=47;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.59;ReadPosRankSum=-4.345e+00;SOR=0.892	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:36, 9:45:9 9:0 1:5 765_G _A:25 9,0,14	BA .5	no

57	G C	25	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.295;DP=45;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.59;ReadPosRankSum=-4.342e+00;SOR=0.892	:A 0 1:36, D: 9:45:9 DP: 9:0 1:5 GQ 765_G BA _A:25 .5 no :PG T:P 9,0,14 ID: 59:576 PL: 5 PS GT
58	C T	18	P	AC=2;AF=1.00;AN=2;DP=10;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=23.00;SOR=0.693	:A 1/1:0, D: 8:8:24 BA DP: :198,2 .5 no GQ 4,0 :PL GT
66	C T	60.	P	AC=2;AF=1.00;AN=2;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=20.28;SOR=1.179	:A 1/1:0, D: 3:3:9 BA DP: 74,9,0 .5 yes GQ :PL GT
67	C A	40	P	AC=2;AF=1.00;AN=2;BaseQRankSum=0.631;DP=1434;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=30.14;ReadPosRankSum=0.501;SOR=0.278	GT 1/1:1, :A 1347:1 BA D: 348:99 .5 yes DP: :40639 GQ ,4004, :PL 0 GT
67	C A	78.	P	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=30.67;SOR=0.693	:A 1 1:0,2 D: :2:6:1 DP: 1:6792 BA GQ _T_T .5 no :PG A:90,6 T:P ,0:679 ID: 2 PL: PS
69	T G	10	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-3.190e-01;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLE	GT 0/1:3, :A 5:8:67 BA D: :116,0, .5 no DP: 67

					AF=0.500;MQ=60.00;MQR	GQ			
					ankSum=0.00;QD=13.58;Re	:PL			
					adPosRankSum=-				
					1.292e+00;SOR=0.799				
					AC=2;AF=1.00;AN=2;Base				
					QRankSum=-	GT	1/1:10		
70		13	P		2.040e+00;DP=4081;Excess	:A	,3798:		
29	C T	24	A		Het=0.0000;FS=0.000;MLE	D:	3813:9	BA	
		91.	S		AC=2;MLEAF=1.00;MQ=6	DP:	9:1325	.5	yes
		1	S		0.00;MQRankSum=0.00;QD	GQ	05,110		
					=34.79;ReadPosRankSum=0	:PL	13,0		
					.685;SOR=0.168				
					AC=2;AF=1.00;AN=2;DP=	GT			
74			P		5;ExcessHet=0.0000;FS=0.0	:A	1/1:0,		
71	C T	85.	A		00;MLEAC=2;MLEAF=1.0	D:	4:4:12	BA	
		14	S		0;MQ=60.00;QD=21.29;SO	DP:	:99,12,	.5	no
			S		R=0.693	GQ	0		
					AC=1;AF=0.500;AN=2;Bas	GT	0/1:50		
			P		eQRankSum=-7.310e-	:A	0,187:		
75		30	A		01;DP=700;ExcessHet=0.00	D:	687:99	BA	
28	C T	81.	S		00;FS=1.247;MLEAC=1;M	DP:	:3089,	.5	yes
		64	S		LEAF=0.500;MQ=60.00;M	GQ	0,1211		
					QRankSum=0.00;QD=4.49;	:PL	9		
					ReadPosRankSum=0.977;S				
					OR=0.842				
					AC=2;AF=1.00;AN=2;Base	GT			
			P		QRankSum=0.933;DP=262;	:A	1/1:2,		
78		70	A		ExcessHet=0.0000;FS=0.00	D:	238:24	BA	
51	C T	35.	S		0;MLEAC=2;MLEAF=1.00;	DP:	0:99:7	.5	no
		06	S		MQ=60.00;MQRankSum=0.	GQ	049,67		
					00;QD=29.31;ReadPosRank	:PL	1,0		
					Sum=-2.610e-				
					01;SOR=1.019				
					AC=1;AF=0.500;AN=2;Bas	GT			
			P		eQRankSum=-2.820e-	:A	0 1:7,2		
82			A		01;DP=9;ExcessHet=0.0000	D:	:9:63:		
55	G A	55.	S		;FS=0.000;MLEAC=1;MLE	DP:	0 1:82	BA	
		64	S		AF=0.500;MQ=60.00;MQR	GQ	55_G_	.5	no
			S		ankSum=0.00;QD=6.18;Rea	:PG	A:63,0		
					dPosRankSum=-2.820e-	T:P	,288:8		
					01;SOR=0.495	ID:	255		
						PL:			
						PS			
82		55.	P		AC=1;AF=0.500;AN=2;Bas	GT	0 1:7,2	BA	
62	C T	64	A		eQRankSum=-2.820e-	:A	:9:63:	.5	no

				S	01;DP=9;ExcessHet=0.0000	D:	0 1:82		
				S	;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=6.18;ReadPosRankSum=-1.383e+00;SOR=0.495	DP:	55_G_		
						GQ	A:63,0		
						:PG	,288:8		
						T:P	255		
						ID:			
						PL:			
						PS			
						GT			
						:A			
						D:	1 1:0,2		
82	T	A	78.	P	AC=2;AF=1.00;AN=2;DP=	DP:	:2:6:1		
89			32	A	2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.20;SOR=0.693	GQ	1:8289	BA	no
				S		:PG	_T_A:	.5	
				S		T:P	90,6,0:		
						ID:	8289		
						PL:			
						PS			
						GT			
						:A			
						D:	1 1:0,2		
82	C	T	78.	P	AC=2;AF=1.00;AN=2;DP=	DP:	:2:6:1		
92			32	A	2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=25.00;SOR=0.693	GQ	1:8289	BA	no
				S		:PG	_T_A:	.5	
				S		T:P	90,6,0:		
						ID:	8289		
						PL:			
						PS			
						GT			
						:A			
						D:	1 1:0,2		
82	A	C	78.	P	AC=2;AF=1.00;AN=2;DP=	DP:	:2:6:1		
95			32	A	2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.56;SOR=0.693	GQ	1:8289	BA	no
				S		:PG	_T_A:	.5	
				S		T:P	90,6,0:		
						ID:	8289		
						PL:			
						PS			
						GT			
						:A			
						D:	1 1:0,4		
84	C	A	16	P	AC=2;AF=1.00;AN=2;DP=	DP:	:4:12:		
63			6.1	A	4;ExcessHet=0.0000;FS=0.00;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=33.63;SOR=0.693	D:	1 1:84	BA	no
			4	S		DP:	52_A	.5	
				S		GQ	CGTA		
						:PG	GTG_		
						T:P	A:180,		
						ID:			

84	T	G	16	P	AC=2;AF=1.00;AN=2;DP=	PL: 12,0:8		
64			6.1	A	4;ExcessHet=0.0000;FS=0.0	PS 452		
			4	S	00;MLEAC=2;MLEAF=1.0	GT 1 1:0,4		
				S	0;MQ=60.00;QD=30.55;SO	:A :4:12:		
					R=0.693	D: 1 1:84		
						DP: 52_A	BA	no
						GQ CGTA	.5	
						:PG GTG_		
						T:P A:180,		
						ID: 12,0:8		
						PL: 452		
						PS		
						GT		
						:A 0 1:27,		
85	T	G	16	P	AC=1;AF=0.500;AN=2;Bas	D: 6:33:9		
92			3.6	A	eQRankSum=3.03;DP=33;E	DP: 9:0 1:8		
			4	S	xcessHet=0.0000;FS=4.263;	GQ 581_G	BA	no
				S	MLEAC=1;MLEAF=0.500;	:PG TT_G:	.5	
					MQ=60.00;MQRankSum=0.	T:P 171,0,		
					00;QD=4.96;ReadPosRankS	ID: 1116:8		
					um=-1.059e+00;SOR=1.187	PL: 581		
						PS		
						GT		
						:A 0 1:27,		
85	T	A	16	P	AC=1;AF=0.500;AN=2;Bas	D: 6:33:9		
93			3.6	A	eQRankSum=2.78;DP=33;E	DP: 9:0 1:8		
			4	S	xcessHet=0.0000;FS=4.263;	GQ 581_G	BA	no
				S	MLEAC=1;MLEAF=0.500;	:PG TT_G:	.5	
					MQ=60.00;MQRankSum=0.	T:P 171,0,		
					00;QD=4.96;ReadPosRankS	ID: 1116:8		
					um=-1.059e+00;SOR=1.187	PL: 581		
						PS		
						GT		
						:A 0 1:29,		
85	T	A	15	P	AC=1;AF=0.500;AN=2;Bas	D: 6:35:9		
98			7.6	A	eQRankSum=2.92;DP=35;E	DP: 9:0 1:8		
			4	S	xcessHet=0.0000;FS=4.212;	GQ 581_G	BA	no
				S	MLEAC=1;MLEAF=0.500;	:PG TT_G:	.5	
					MQ=60.00;MQRankSum=0.	T:P 165,0,		
					00;QD=4.50;ReadPosRankS	ID: 1200:8		
					um=-4.630e-01;SOR=1.194	PL: 581		
						PS		
						GT 0 1:29,		
85	T	A	15	P	AC=1;AF=0.500;AN=2;Bas	:A 6:35:9	BA	no
99			7.6	A	eQRankSum=2.92;DP=35;E	D: 9:0 1:8	.5	
			4	S	xcessHet=0.0000;FS=4.212;	DP: 581_G		
				S	MLEAC=1;MLEAF=0.500;			

					MQ=60.00;MQRankSum=0.00;QD=4.50;ReadPosRankSum=-8.160e-01;SOR=1.194	GQ	TT_G:		
						:PG	165,0,		
						T:P	1200:8		
						ID:	581		
						PL:			
						PS			
						GT			
					AC=1;AF=0.500;AN=2;BaseQRankSum=3.03;DP=36;ExcessHet=0.0000;FS=4.077;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.30;ReadPosRankSum=-1.081e+00;SOR=1.219	:A	0 1:30,		
						D:	6:36:9		
						DP:	9:0 1:8		
86	T	A	15	P		GQ	581_G	BA	
04			4.6	A		:PG	TT_G:	.5	no
				S		T:P	162,0,		
				S		ID:	1242:8		
						PL:	581		
						PS			
						GT			
					AC=1;AF=0.500;AN=2;BaseQRankSum=3.05;DP=36;ExcessHet=0.0000;FS=4.077;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.30;ReadPosRankSum=-9.200e-01;SOR=1.219	:A	0 1:30,		
						D:	6:36:9		
						DP:	9:0 1:8		
86	C	A	15	P		GQ	581_G	BA	
05			4.6	A		:PG	TT_G:	.5	no
				S		T:P	162,0,		
				S		ID:	1242:8		
						PL:	581		
						PS			
						GT			
					AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=1.447	:A	0 1:1,1		
						D:	:2:39:		
						DP:	0 1:86		
86	T	A	31.	P		GQ	05_C	BA	
09			64	A		:PG	CTT_	.5	no
				S		T:P	C:39,0		
				S		ID:	,39:86		
						PL:	05		
						PS			
						GT			
					AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=1.447	:A	0 1:1,1		
						D:	:2:39:		
						DP:	0 1:86		
86	T	G	31.	P		GQ	05_C	BA	
14			64	A		:PG	CTT_	.5	no
				S		T:P	C:39,0		
				S		ID:	,39:86		
						PL:	05		
						PS			

86 16	C	A	31. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=1.447	GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:1,1 :2:39: 0 1:86 05_C CTT_ C:39,0 ,39:86 05	BA .5	no
86 26	C	T	20 27 00. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-2.572e+00;DP=5593;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=28.17;ReadPosRankSum=-2.250e-01;SOR=0.816	GT :A D: DP: GQ :PL	1/1:21 ,5372: 5393:9 9:2027 14,152 62,0	BA .5	yes
86 98	T	C	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=32.62;SOR=1.609	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,1 :1:3:1 1:8698 _T_C: 45,3,0: 8698	BA .5	no
87 00	T	A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.33;SOR=1.609	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,1 :1:3:1 1:8698 _T_C: 45,3,0: 8698	BA .5	no
87 06	G	C	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=35.36;SOR=1.609	GT :A D: DP: GQ :PG T:P ID:	1 1:0,1 :1:3:1 1:8698 _T_C: 45,3,0: 8698	BA .5	no

91 30	G T	26 29 1.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=1060;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.12;SOR=0.907	PL: PS GT :A 1/1:0, D: 935:93 DP: 5:99:2 GQ 6305,2 :PL 804,0	BA .5	no
91 60	T A	13 74. 06	P A S S	AC=2;AF=1.00;AN=2;DP=52;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.42;SOR=0.941	GT :A 1/1:0, D: 52:52: DP: 99:138 GQ 8,156, :PL 0	BA .5	yes
92 35	A G	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	GT :A 1/1:0, D: 2:2:6: DP: 49,6,0 GQ :PL	BA .5	no
92 60	T G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=34.30;SOR=0.693	GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:9260 :PG _T_G: T:P 90,6,0: ID: 9260 PL: PS GT	BA .5	no
93 44	C T	18 06 00. 1	P A S S	AC=2;AF=1.00;AN=2;DP=4770;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.80;SOR=1.118	:A 1 1:0,4 D: 649:46 DP: 49:99: GQ 1 1:93 :PG 44_C_ T:180 T:P 614,13 ID: 977,0: PL: 9344 PS GT	BA .5	yes
94 06	A G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=35.92;SOR=0.693	:A 1 1:0,2 D: :2:6:1 DP: 1:9402 GQ _CTA :PG _C:90,	BA .5	no

94	G	A	78.	P	AC=2;AF=1.00;AN=2;DP=	T:P	6,0:94		
14			32	A	2;ExcessHet=0.0000;FS=0.0	ID:	02		
				S	00;MLEAC=1;MLEAF=0.5	PL:			
				S	00;MQ=60.00;QD=29.94;S	PS			
					OR=0.693	GT			
						:A			
						D:	1 1:0,2		
						DP:	:2:6:1		
						GQ	1:9402	BA	
						:PG	_CTA	.5	no
						T:P	_C:90,		
						ID:	6,0:94		
						PL:	02		
						PS			
						GT			
						:A			
					AC=1;AF=0.500;AN=2;Bas	D:	0 1:29,		
					eQRankSum=-4.670e-	DP:	4:33:8		
					01;DP=35;ExcessHet=0.000	GQ	1:0 1:9	BA	
94	G	T	73.	A	0;FS=0.000;MLEAC=1;ML	:PG	417_G	.5	no
17			64	S	EAF=0.500;MQ=60.00;MQ	T:P	_T:81,		
				S	RankSum=0.00;QD=2.23;R	ID:	0,1206		
					eadPosRankSum=-	PL:	:9417		
					1.413e+00;SOR=0.631	PS			
						GT			
						:A			
					AC=1;AF=0.500;AN=2;Bas	D:	0 1:29,		
					eQRankSum=-	DP:	4:33:8		
					1.880e+00;DP=33;ExcessHe	GQ	1:0 1:9	BA	
94	A	T	73.	A	t=0.0000;FS=0.000;MLEAC	:PG	417_G	.5	no
19			64	S	=1;MLEAF=0.500;MQ=60.	T:P	_T:81,		
				S	00;MQRankSum=0.00;QD=	ID:	0,1206		
					2.23;ReadPosRankSum=-	PL:	:9417		
					1.411e+00;SOR=0.631	PS			
						GT			
						:A			
					AC=1;AF=0.500;AN=2;Bas	D:	0 1:29,		
					eQRankSum=-4.840e-	DP:	4:33:8		
					01;DP=33;ExcessHet=0.000	GQ	1:0 1:9	BA	
94	T	G	73.	A	0;FS=0.000;MLEAC=1;ML	:PG	417_G	.5	no
20			64	S	EAF=0.500;MQ=60.00;MQ	T:P	_T:81,		
				S	RankSum=0.00;QD=2.23;R	ID:	0,1206		
					eadPosRankSum=-	PL:	:9417		
					1.747e+00;SOR=0.631	PS			
						GT			
						:A			
					AC=2;AF=1.00;AN=2;Base	GT	1 1:14,	BA	
94	A	G	17	P	QRankSum=-8.300e-	:A	4451:4	.5	yes
24			41	A					

		27.	S		01;DP=4659;ExcessHet=0.0	D:	465:99		
		1	S		000;FS=0.000;MLEAC=2;	DP:	:1 1:93		
					MLEAF=1.00;MQ=60.00;M	GQ	44_C_		
					QRankSum=0.00;QD=26.00	:PG	T:174		
					;ReadPosRankSum=2.27;SO	T:P	141,12		
					R=0.275	ID:	818,0:		
						PL:	9344		
						PS			
					AC=2;AF=1.00;AN=2;Base				
					QRankSum=-5.870e-	GT	1/1:1,		
		18	P		01;DP=5088;ExcessHet=0.0	:A	4898:4		
95	C	33	A		000;FS=0.000;MLEAC=2;	D:	906:99	BA	
34	T	98.	S		MLEAF=1.00;MQ=60.00;M	DP:	:18341	.5	yes
		1	S		QRankSum=0.524;QD=30.0	GQ	2,1468		
					2;ReadPosRankSum=-	:PL	8,0		
					1.486e+00;SOR=0.262				
						GT			
						:A			
					AC=2;AF=1.00;AN=2;DP=	D:	1 1:0,1		
95	T	35.	A		1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1		
35	A	48	S		00;MLEAC=1;MLEAF=0.5	GQ	1:9533	BA	
			S		00;MQ=60.00;QD=28.86;S	:PG	_A_A	.5	no
					OR=1.609	TTG:4			
						T:P	5,3,0:9		
						ID:	533		
						PL:			
						PS			
						GT			
						:A			
					AC=2;AF=1.00;AN=2;DP=	D:	1 1:0,1		
95	G	35.	A		1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1		
43	T	48	S		00;MLEAC=1;MLEAF=0.5	GQ	1:9533	BA	
			S		00;MQ=60.00;QD=31.11;S	:PG	_A_A	.5	no
					OR=1.609	TTG:4			
						T:P	5,3,0:9		
						ID:	533		
						PL:			
						PS			
						GT			
						:A			
					AC=2;AF=1.00;AN=2;DP=	D:	1 1:0,1		
95	T	35.	A		1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1		
45	A	48	S		00;MLEAC=1;MLEAF=0.5	GQ	1:9533	BA	
			S		00;MQ=60.00;QD=34.66;S	:PG	_A_A	.5	no
					OR=1.609	TTG:4			
						T:P	5,3,0:9		
						ID:	533		
						PL:			
						PS			

95	T A	78.	P	AC=2;AF=1.00;AN=2;DP=	GT			
89		32	A	2;ExcessHet=0.0000;FS=0.0	:A			
			S	00;MLEAC=1;MLEAF=0.5	D: 1 1:0,2			
			S	00;MQ=60.00;QD=29.40;S	DP: :2:6:1			
				OR=0.693	GQ 1:9589	BA	no	
					:PG _T_A:	.5		
					T:P 90,6,0:			
					ID: 9589			
					PL:			
					PS			
					GT			
					:A			
					D: 1 1:0,2			
					DP: :2:6:1			
95	C G	78.	P	AC=2;AF=1.00;AN=2;DP=	GQ 1:9589	BA	no	
92		32	A	2;ExcessHet=0.0000;FS=0.0	:PG _T_A:	.5		
			S	00;MLEAC=1;MLEAF=0.5	T:P 90,6,0:			
			S	00;MQ=60.00;QD=36.76;S	ID: 9589			
				OR=0.693	PL:			
					PS			
					GT			
					:A			
					D: 1 1:0,2			
					DP: :2:6:1			
95	G A	78.	P	AC=2;AF=1.00;AN=2;DP=	GQ 1:9589	BA	no	
95		32	A	2;ExcessHet=0.0000;FS=0.0	:PG _T_A:	.5		
			S	00;MLEAC=1;MLEAF=0.5	T:P 90,6,0:			
			S	00;MQ=60.00;QD=30.54;S	ID: 9589			
				OR=0.693	PL:			
					PS			
					GT			
					:A			
					D: 1 1:0,2			
					DP: :2:6:1			
95	C T	78.	P	AC=2;AF=1.00;AN=2;DP=	GQ 1:9589	BA	yes	
98		32	A	2;ExcessHet=0.0000;FS=0.0	:PG _T_A:	.5		
			S	00;MLEAC=1;MLEAF=0.5	T:P 90,6,0:			
			S	00;MQ=60.00;QD=21.53;S	ID: 9589			
				OR=0.693	PL:			
					PS			
					GT 1 1:0,2			
					:A :2:6:1			
					D: 1:9589	BA	no	
95	T A	78.	P	AC=2;AF=1.00;AN=2;DP=	DP: _T_A:	.5		
99		32	A	2;ExcessHet=0.0000;FS=0.0	GQ 90,6,0:			
			S	00;MLEAC=1;MLEAF=0.5	:PG 9589			
			S	00;MQ=60.00;QD=34.87;S				
				OR=0.693				

96	T	A	78.	P	AC=2;AF=1.00;AN=2;DP=	T:P			
07			32	A	2;ExcessHet=0.0000;FS=0.0	ID:			
				S	00;MLEAC=1;MLEAF=0.5	PL:			
				S	00;MQ=60.00;QD=34.17;S	PS			
					OR=0.693	GT			
						:A			
						D:	1 1:0,2		
						DP:	:2:6:1		
						GQ	1:9589	BA	
						:PG	_T_A:	.5	no
						T:P	90,6,0:		
						ID:	9589		
						PL:			
						PS			
					AC=2;AF=1.00;AN=2;Base				
					QRankSum=-	GT	1/1:6,		
10			19	P	1.323e+00;DP=5359;Excess	:A	4814:4		
02	C	T	36	A	Het=0.0000;FS=0.000;MLE	D:	871:99	BA	
9			34.	S	AC=2;MLEAF=1.00;MQ=6	DP:	:19364	.5	yes
			1	S	0.00;MQRankSum=0.00;QD	GQ	8,1481		
					=31.98;ReadPosRankSum=0	:PL	5,0		
					.805;SOR=0.279				
					AC=2;AF=1.00;AN=2;Base				
					QRankSum=2.04;DP=5901;	GT	1/1:6,		
10			21	P	ExcessHet=0.0000;FS=0.00	:A	5628:5		
19	C	T	78	A	0;MLEAC=2;MLEAF=1.00;	D:	644:99	BA	
8			85.	S	MQ=60.00;MQRankSum=-	DP:	:21789	.5	yes
			1	S	3.340e-	GQ	9,1673		
					01;QD=27.51;ReadPosRank	:PL	2,0		
					Sum=4.00;SOR=0.722				
					AC=2;AF=1.00;AN=2;DP=	GT	1/1:4,		
10			19	P	4486;ExcessHet=0.0000;FS	:A	4287:4		
44	G	A	19	A	=0.000;MLEAC=2;MLEAF	D:	291:99	BA	
7			66.	S	=1.00;MQ=60.00;QD=27.51	DP:	:19198	.5	yes
			1	S	;SOR=1.144	GQ	0,1274		
						:PL	4,0		
						GT	1/1:0,		
10			24	P	AC=2;AF=1.00;AN=2;DP=	:A	4451:4		
44	C	A	06	A	5512;ExcessHet=0.0000;FS	D:	530:99	BA	
9			12.	S	=0.000;MLEAC=2;MLEAF	DP:	:24062	.5	yes
			1	S	=1.00;MQ=60.00;QD=28.08	GQ	6,1615		
					;SOR=1.141	:PL	3,0		
					AC=1;AF=0.500;AN=2;Bas	GT	0/1:11		
10			97	P	eQRankSum=0.328;DP=179	:A	98,519	BA	
56	T	A	27.	A	2;ExcessHet=0.0000;FS=0.0	D:	:1717:	.5	no
1			64	S	00;MLEAC=1;MLEAF=0.5	DP:	99:973		

				00;MQ=60.00;MQRankSum	GQ	5,0,29		
				=0.00;QD=5.67;ReadPosRa	:PL	440		
				nkSum=0.235;SOR=0.654				
							0 1:13,	
							4:17:9	
							9:0 1:1	
							0482_	
							GTTC	
							ATGT	
				AC=1;AF=0.500;AN=2;Bas	GT	GGTA		
				eQRankSum=-9.420e-	:A	GTGT		
				01;DP=17;ExcessHet=0.000	D:	TGGT		
10		12	P	0;FS=0.000;MLEAC=1;ML	DP:	TTTA		
56	G C	1.6	A	EAF=0.500;MQ=60.00;MQ	GQ	ACAT	BA	no
5		4	S	RankSum=0.00;QD=7.16;R	:PG	AGAT	.5	
			S	eadPosRankSum=-	T:P	TATG		
				2.001e+00;SOR=0.569	ID:	ACTG		
					PL:	TGTC		
					PS	TCTT		
						TTTG		
						TTAC		
						A_G:1		
						29,0,5		
						34:104		
						82		
						0 1:13,		
						4:17:9		
						9:0 1:1		
						0482_		
						GTTC		
					GT	ATGT		
				AC=1;AF=0.500;AN=2;Bas	:A	GGTA		
				eQRankSum=-9.420e-	D:	GTGT		
				01;DP=17;ExcessHet=0.000	DP:	TGGT		
10		12	P	0;FS=0.000;MLEAC=1;ML	GQ	TTTA	BA	no
56	C G	1.6	A	EAF=0.500;MQ=60.00;MQ	:PG	ACAT	.5	
8		4	S	RankSum=0.00;QD=7.16;R	T:P	AGAT		
			S	eadPosRankSum=-	ID:	TATG		
				2.459e+00;SOR=0.569	PL:	ACTG		
					PS	TGTC		
						TCTT		
						TTTG		
						TTAC		
						A_G:1		
						29,0,5		

									34:104			
									82			
10		63	P	AC=2;AF=1.00;AN=2;DP=	GT	1 1:0,						
61	C T	15	A	2314;ExcessHet=0.0000;FS	:A	2110:2						
5		6.0	S	=0.000;MLEAC=2;MLEAF	D:	112:99	BA				yes	
		6	S	=1.00;MQ=60.00;QD=29.93	DP:	:63170	.5					
				;SOR=1.019	GQ	,6380,						
					:PL	0						
					GT							
				AC=1;AF=0.500;AN=2;Bas	:A	0 1:5,2						
10			P	eQRankSum=-3.660e-	D:	:7:69:						
74	A T	61.	A	01;DP=7;ExcessHet=0.0000	DP:	0 1:10						
5		64	S	;FS=0.000;MLEAC=1;MLE	GQ	740_A	BA				no	
			S	AF=0.500;MQ=60.00;MQR	:PG	_AGA	.5					
			S	ankSum=0.00;QD=8.81;Rea	T:P	TCTT						
				dPosRankSum=-	ID:	G:69,0						
				1.981e+00;SOR=0.446	PL:	,204:1						
					PS	0740						
					GT							
				AC=1;AF=0.500;AN=2;Bas	:A	0 1:5,2						
10			P	eQRankSum=-3.660e-	D:	:7:69:						
74	A C	61.	A	01;DP=7;ExcessHet=0.0000	DP:	0 1:10						
6		64	S	;FS=0.000;MLEAC=1;MLE	GQ	740_A	BA				no	
			S	AF=0.500;MQ=60.00;MQR	:PG	_AGA	.5					
			S	ankSum=0.00;QD=8.81;Rea	T:P	TCTT						
				dPosRankSum=-	ID:	G:69,0						
				1.981e+00;SOR=0.446	PL:	,204:1						
					PS	0740						
					GT							
				AC=1;AF=0.500;AN=2;Bas	:A	0 1:79						
10		42	P	eQRankSum=1.24;DP=270;	D:	,176:2						
80	C T	01.	A	ExcessHet=0.0000;FS=1.04	DP:	55:99:	BA				no	
9		64	S	0;MLEAC=1;MLEAF=0.50	GQ	4209,0	.5					
			S	0;MQ=60.00;MQRankSum=	:PL	,1373						
				0.00;QD=16.48;ReadPosRa	GT							
				nkSum=-8.770e-	:A	1 1:0,1						
				01;SOR=0.785	D:	:1:3:1						
					DP:	1:1083						
10			P	AC=2;AF=1.00;AN=2;DP=	GQ	4_C_	BA				no	
83	G A	35.	A	1;ExcessHet=0.0000;FS=0.0	:PG	CCAA	.5					
5		48	S	00;MLEAC=1;MLEAF=0.5	T:P	CAAT						
			S	00;MQ=60.00;QD=30.20;S	ID:	:45,3,0						
				OR=1.609	PL:	:10834						
					PS							

11 26 6	G T	15 0.9 7	P A S S	AC=2;AF=1.00;AN=2;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.16;SOR=0.693	GT :A 1 1:0, D: 6:6:18 DP: :165,1 GQ 8,0 :PL GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:11 :PG 410_G_ T:P _C:78, ID: 0,78:1 PL: 1410 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS	BA .5	yes
11 38 1	A G	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=31.67;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:11 :PG 410_G_ T:P _C:78, ID: 0,78:1 PL: 1410 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS	BA .5	no
11 38 2	G T	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.53;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1137 :PG 8_G_ T:P GA:45 ID: ,3,0:11 PL: 378 PS GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:11 :PG 410_G_ T:P _C:78, ID: 0,78:1 PL: 1410 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS	BA .5	no
11 41 0	G C	70. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=1.38;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=17.66;ReadPosRankSum=-1.383e+00;SOR=2.303	GT :A D: 0 1:2,2 DP: :4:78: GQ 0 1:11 :PG 410_G_ T:P _C:78, ID: 0,78:1 PL: 1410 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS	BA .5	no
11 77 9	C A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=27.97;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS	BA .5	no

11 78 4	T G	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=35.21;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS GT :A 0 1:7,2 D: :9:63: DP: 0 1:11 GQ 801_G :PG _GTT T:P AAA ID: CA:63 PL: ,0,268: PS 11801	BA .5	no
11 80 4	G T	55. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.319;DP=9;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=6.18;ReadPosRankSum=-1.383e+00;SOR=0.495	GT 1/1:15 :A ,4683: D: 4698:9 DP: 9:1741 GQ 14,134 :PL 88,0 GT :A 1 1:0,1 D: :1:3:1 DP: 1:1192 GQ 0_T_ :PG G:45,3 T:P ,0:119 ID: 20 PL: PS GT 0 1:4,2 :A :6:72: D: 0 1:12 DP: 036_C GQ _CAT :PG CA:72 T:P ,0,162: ID: 12036	BA .5	no
11 82 4	C T	17 41 00. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-2.339e+00;DP=4938;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.106;QD=23.23;ReadPosRankSum=4.61;SOR=0.232	GT 1/1:15 :A ,4683: D: 4698:9 DP: 9:1741 GQ 14,134 :PL 88,0 GT :A 1 1:0,1 D: :1:3:1 DP: 1:1192 GQ 0_T_ :PG G:45,3 T:P ,0:119 ID: 20 PL: PS GT 0 1:4,2 :A :6:72: D: 0 1:12 DP: 036_C GQ _CAT :PG CA:72 T:P ,0,162: ID: 12036	BA .5	yes
11 92 0	T G	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.59;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1192 :PG 0_T_ T:P G:45,3 ID: ,0:119 PL: 20 PS GT :A 0 1:4,2 D: :6:72: DP: 0 1:12 GQ 036_C :PG _CAT T:P CA:72 ID: ,0,162: 12036	BA .5	no
12 03 8	G T	64. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=10.77;ReadPosRankSum=-1.834e+00;SOR=0.693	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1177 :PG 9_C_ T:P A:45,3 ID: ,0:117 PL: 79 PS GT :A 0 1:7,2 D: :9:63: DP: 0 1:11 GQ 801_G :PG _GTT T:P AAA ID: CA:63 PL: ,0,268: PS 11801	BA .5	no

12	16	0	G	A	19	76	96.	1	P	A	S	S	AC=2;AF=1.00;AN=2;Base QRankSum=1.96;DP=5451; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=29.03;ReadPosRank Sum=4.36;SOR=0.203	GT :A D: DP: GQ :PL	1/1:11 ,5256: 5267:9 9:1977 10,154 56,0	BA	.5	yes
12	25	8	A	C	35.	48			P	A	S	S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=34.86;S OR=1.609	GT :A D: DP: GQ :PL	1/1:0, 1:1:3: 45,3,0	BA	.5	no
12	31	0	G	A	20	57	06.	1	P	A	S	S	AC=2;AF=1.00;AN=2;Base QRankSum=- 1.296e+00;DP=5547;Excess Het=0.0000;FS=0.000;MLE AC=2;MLEAF=1.00;MQ=6 0.00;MQRankSum=0.00;QD =29.03;ReadPosRankSum=0 .707;SOR=0.465	GT :A D: DP: GQ :PL	1/1:4, 5283:5 291:99 :20572 0,1576 8,0	BA	.5	yes
12	88	0	C	T	16	89	81.	1	P	A	S	S	AC=2;AF=1.00;AN=2;DP= 5126;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=30.67 ;SOR=0.882	GT :A D: DP: GQ :PL	1/1:0, 4603:4 606:99 :16899 5,1384 4,0	BA	.5	yes
13	69	8	T	A	70.	64			P	A	S	S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=4;Ex cessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=17.66;ReadPosRank Sum=1.38;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:2,2 :4:78: 0 1:13 698_T _*:78, 0,78:1 3698	BA	.5	no
13	70	0	A	C	70.	64			P	A	S	S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=4;Ex cessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=17.66;ReadPosRank Sum=1.38;SOR=0.693	GT :A D: DP: GQ :PG T:P	0 1:2,2 :4:78: 0 1:13 698_T _*:78, 0,78:1 3698	BA	.5	no

13 70 8	C	A	70. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=4;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=17.66;ReadPosRankSum=1.38;SOR=0.693	ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL:	0 1:2,2 :4:78: 0 1:13 698_T _*:78, 0,78:1 3698	BA .5	no
13 79 1	A	C	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	ID: PL: PS GT :A D: DP: GQ :PL GT :A D: DP: GQ	1/1:0, 2:2:6: 49,6,0	BA .5	no
13 87 6	C	A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.53;SOR=0.693	ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL:	1 1:0,2 :2:6:1 1:1387 6_C_ A:90,6 ,0:138 76	BA .5	no
13 87 8	T	C	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=27.23;SOR=0.693	ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL:	1 1:0,2 :2:6:1 1:1387 6_C_ A:90,6 ,0:138 76	BA .5	no
13 87 9	G	A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.52;SOR=0.693	ID: PL: PS GT :A D: DP: GQ :PG T:P	1 1:0,2 :2:6:1 1:1387 6_C_ A:90,6 ,0:138 76	BA .5	no

ID:	PL:	PS						
14 18 1	G C	35 90. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.100;DP=654;ExcessHet=0.0000;FS=1.190;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.75;ReadPosRankSum=2.76;SOR=0.632	GT :A D: DP: GQ :PL	0/1:42 3,201: 624:99 :3598, 0,9674	BA .5	no
14 26 5	C T	28 70 3.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=1070;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.98;SOR=0.705	GT :A D: DP: GQ :PL	1/1:0, 1026:1 026:99 :28717 ,3074, 0	BA .5	yes
14 35 9	A G	61. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.524;DP=10;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=6.16;ReadPosRankSum=0.859;SOR=0.693	GT :A D: DP: GQ :PL	0/1:6, 4:10:6 9:69,0, 104	BA .5	no
14 39 5	A G	68 1.6 4	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.447e+00;DP=58;ExcessHet=0.0000;FS=1.022;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=11.96;ReadPosRankSum=0.073;SOR=0.495	GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:25, 32:57: 99:0 1: 14395 _A_G: 689,0, 567:14 395	BA .5	no
14 40 8	C T	19 37 73. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.82;DP=5338;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-5.940e-01;QD=26.61;ReadPosRankSum=0.703;SOR=0.297	GT :A D: DP: GQ :PL	1/1:1, 5119:5 120:99 :19378 7,1536 3,0	BA .5	yes
14 67 3	A G	77. 84	P A S S	AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=25.95;SOR=1.179	GT :A D: DP:	1/1:0, 3:3:9: 91,9,0	BA .5	yes

14	G	A	31.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=2;ExcessHet=0.0000;FS=0.000;	GQ			
87			64	A	MLEAC=1;MLEAF=0.500;	:PL			
4				S	MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=0.693	GT			
				S		:A	0 1:1,1		
						D:	:2:39:		
						DP:	0 1:14	BA	no
						GQ	874_G	.5	
						:PG	_A:39,		
						T:P	0,39:1		
						ID:	4874		
						PL:			
						PS			
						GT			
14	C	T	31.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=2;ExcessHet=0.0000;FS=0.000;	:A	0 1:1,1		
87			64	A	MLEAC=1;MLEAF=0.500;	D:	:2:39:		
7				S	MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=0.693	DP:	0 1:14	BA	yes
				S		GQ	874_G	.5	
						:PG	_A:39,		
						T:P	0,39:1		
						ID:	4874		
						PL:			
						PS			
						GT			
14	G	T	35.	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.95;SOR=1.609	:A	1 1:0,1		
88			48	A		D:	:1:3:1		
5				S		DP:	1:1488	BA	no
				S		GQ	3_T_T	.5	
						:PG	A:45,3		
						T:P	,0:148		
						ID:	83		
						PL:			
						PS			
						GT			
14	C	T	35.	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=30.22;SOR=1.609	:A	1 1:0,1		
88			48	A		D:	:1:3:1		
9				S		DP:	1:1488	BA	no
				S		GQ	3_T_T	.5	
						:PG	A:45,3		
						T:P	,0:148		
						ID:	83		
						PL:			
						PS			
						GT			
15	G	T	78.	P	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500	:A	:2:6:1	BA	no
26			32	A		D:	1:1525	.5	
2				S		DP:	9_A_		

				00;MQ=60.00;QD=31.18;S OR=0.693	GQ ATAG :PG GG:90 T:P ,6,0:15 ID: 259 PL: PS GT :A 1 1:0,2 D: :2:6:1 DP: 1:1525 GQ 9_A_ BA :PG ATAG .5 no T:P GG:90 ID: ,6,0:15 PL: 259 PS GT :A 1 1:0,2 D: :2:6:1 DP: 1:1526 GQ 7_A_ BA :PG G:90,6 .5 no T:P ,0:152 ID: 67 PL: PS
15 26 3	A T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.65;S OR=0.693	
15 26 7	A G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=25.00;S OR=0.693	
15 34 2	C T	50 75 3.0 6	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.04;DP=1953;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.000;QD=34.76;ReadPosRankSum=-4.700e-02;SOR=0.775	GT 1/1:2, :A 1458:1 D: 466:99 BA DP: :50767 .5 no GQ ,5346, :PL 0
15 35 2	C T	28 91 6.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=1102;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.97;SOR=0.742	GT 1/1:0, :A 1072:1 D: 072:99 BA DP: :28930 .5 no GQ ,3210, :PL 0
15 71 4	C T	20 67 70. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-5.320e-01;DP=5762;ExcessHet=0.000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.000;QD=29.20	GT 1/1:1, :A 3007:3 D: 092:99 BA DP: :20678 .5 yes GQ 4,1649 :PL 3,0

16 37 7	G A	14 87 65. 1	P A S S	;ReadPosRankSum=1.05;SOR=0.467 AC=2;AF=1.00;AN=2;BaseQRankSum=2.06;DP=4464;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=30.62;ReadPosRankSum=1.72;SOR=0.371	GT :A D: DP: GQ :PL	1/1:1, 3409:3 435:99 :14877 9,1261 5,0	BA .5	no
16 45 6	T C	16 7.9 7	P A S S	AC=2;AF=1.00;AN=2;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.00;SOR=0.693	GT :A D: DP: GQ :PL	1/1:0, 6:6:18 :182,1 8,0	BA .5	yes
16 61 6	C A	21 51 43. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5666;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.55;SOR=0.943	GT :A D: DP: GQ :PL	1/1:0, 5381:5 409:99 :21515 7,1655 5,0	BA .5	yes
16 88 7	C T	22 54 24. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.36;DP=5879;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=34.42;ReadPosRankSum=4.16;SOR=0.201	GT :A D: DP: GQ :PL	1/1:9, 4791:4 807:99 :22543 8,1681 9,0	BA .5	yes
17 13 0	C T	90 09 0.0 6	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=0.294;DP=2982;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=31.51;ReadPosRankSum=0.138;SOR=0.435	GT :A D: DP: GQ :PL	1/1:16 ,2843: 2869:9 9:9010 4,7965 ,0	BA .5	yes
17 18 6	T C	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.319;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=2.10;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:6,2 :8:66: 0 1:17 186_T _C:66, 0,246: 17186	BA .5	no

17 20 8	T C	22 68 69. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=2.34;DP=5909; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=28.53;ReadPosRank Sum=1.03;SOR=0.635	GT :A D: DP: GQ :PL	1/1:5, 5746:5 751:99 :22688 3,1710 7,0	BA .5	yes
17 41 0	C T	20 79 96. 1	P A S S	AC=2;AF=1.00;AN=2;DP= 5545;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=27.23 ;SOR=1.142	GT :A D: DP: GQ :PL	1/1:0, 5301:5 305:99 :20801 0,1597 4,0	BA .5	yes
17 74 6	C T	83 13 2.0 6	P A S S	AC=2;AF=1.00;AN=2;DP= 2803;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=30.61 ;SOR=0.972	GT :A D: DP: GQ :PL	1/1:0, 2716:2 716:99 :83146 ,8148, 0	BA .5	yes
18 16 0	G A	75 14 1.0 6	P A S S	AC=2;AF=1.00;AN=2;DP= 1801;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=29.56 ;SOR=0.838	GT :A D: DP: GQ :PL	1/1:0, 1722:1 740:99 :75155 ,5190, 0	BA .5	yes
18 16 3	A G	18 98 40. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=- 1.072e+00;DP=5361;Excess Het=0.0000;FS=0.000;MLE AC=2;MLEAF=1.00;MQ=6 0.00;MQRankSum=0.00;QD =29.52;ReadPosRankSum=3 .28;SOR=0.947	GT :A D: DP: GQ :PL	1/1:4, 4983:4 987:99 :18985 4,1485 4,0	BA .5	yes
18 20 6	C A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=35.95;S OR=1.609	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,1 :1:3:1 1:1820 4_C_ CAGC TTT:4 5,3,0:1 8204	BA .5	no
18 26 1	C T	47. 64	P A	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.674;DP=12; ExcessHet=0.0000;FS=0.00	GT :A D:	0/1:9, 3:12:5	BA .5	no

			S	0;MLEAC=1;MLEAF=0.50	DP: 5:55,0,			
			S	0;MQ=60.00;MQRankSum=	GQ 204			
				0.00;QD=3.97;ReadPosRan	:PL			
				kSum=-				
				2.278e+00;SOR=0.941				
18		15	P	AC=2;AF=1.00;AN=2;DP=	GT 1/1:0,			
26	G T	99	A	601;ExcessHet=0.0000;FS=	:A 577:57			
6		0.0	S	0.000;MLEAC=2;MLEAF=	D: 7:99:1	BA		no
		6	S	1.00;MQ=60.00;QD=27.71;	DP: 6004,1	.5		
				SOR=0.739	GQ 730,0			
					:PL			
18			P	AC=2;AF=1.00;AN=2;DP=	GT			
57	G A	37.	A	2;ExcessHet=0.0000;FS=0.0	:A 1/1:0,			
4		32	S	00;MLEAC=1;MLEAF=0.5	D: 2:2:6:	BA		no
			S	00;MQ=60.00;QD=18.66;S	DP: 49,6,0	.5		
				OR=0.693	GQ			
					:PL			
18			P	AC=1;AF=0.500;AN=2;Bas	GT			
68	G C	43.	A	eQRankSum=0.00;DP=8;Ex	:A 0/1:5,			
6		64	S	cessHet=0.0000;FS=3.332;	D: 3:8:51	BA		no
			S	MLEAC=1;MLEAF=0.500;	DP: :51,0,1	.5		
				MQ=60.00;MQRankSum=0.	GQ 02			
				00;QD=5.45;ReadPosRankS	:PL			
				um=0.272;SOR=2.303				
19			P	AC=2;AF=1.00;AN=2;Base	GT 1/1:1,			
01	C T	51	A	QRankSum=-	:A 1792:1			
8		28	S	1.903e+00;DP=1843;Excess	D: 793:99	BA		no
		0.0	S	Het=0.0000;FS=0.000;MLE	DP: :51294	.5		
		6		AC=2;MLEAF=1.00;MQ=6	GQ ,5336,			
				0.00;MQRankSum=0.00;QD	:PL 0			
				=28.60;ReadPosRankSum=-				
				1.644e+00;SOR=0.303				
					GT			
19			P	AC=1;AF=0.500;AN=2;Bas	:A 0 1:8,2			
04	A T	52.	A	eQRankSum=0.00;DP=10;E	D: :10:60			
6		64	S	xcessHet=0.0000;FS=0.000;	DP: :0 1:19			
			S	MLEAC=1;MLEAF=0.500;	GQ 042_C	BA		no
				MQ=60.00;MQRankSum=0.	:PG _CGG	.5		
				00;QD=5.26;ReadPosRankS	T:P :60,0,3			
				um=-2.287e+00;SOR=0.693	ID: 30:190			
					PL: 42			
					PS			
19		81	P	AC=1;AF=0.500;AN=2;Bas	GT 0/1:69			
59	C T	65.	A	eQRankSum=0.622;DP=120	:A 5,388:	BA		no
6		64	S	8;ExcessHet=0.0000;FS=1.1	D: 1083:9	.5		
			S	52;MLEAC=1;MLEAF=0.5	DP: 9:8173			

					00;MQ=60.00;MQRankSum =0.00;QD=7.54;ReadPosRa nkSum=2.85;SOR=0.711	GQ :PL	,0,169 23		
19 89 0	A G	37. 32	P A S S		AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=18.66;S OR=0.693	GT :A D: DP: GQ :PL	1/1:0, 2:2:6: 49,6,0	BA .5	no
19 95 5	C T	21 97 06. 1	P A S S		AC=2;AF=1.00;AN=2;DP= 5728;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=33.47 ;SOR=0.879	GT :A D: DP: GQ :PL	1/1:0, 5619:5 619:99 :21972 0,1689 6,0	BA .5	yes
20 05 5	A G	19 88 85. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=0.272;DP=5685 ;ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 089;QD=32.91;ReadPosRan kSum=-5.190e- 01;SOR=0.416	GT :A D: DP: GQ :PL	1/1:4, 4322:4 326:99 :19889 9,1547 8,0	BA .5	yes
20 45 6	T A	35. 48	P A S S		AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=33.53;S OR=1.609	GT :A D: DP: GQ :PG T:P ID: PL:	1 1:0,1 :1:3:1 1:2045 6_T_ A:45,3 ,0:204 56	BA .5	no
20 45 7	C T	77. 84	P A S S		AC=2;AF=1.00;AN=2;DP= 3;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=25.95;S OR=1.179	GT :A D: DP: GQ :PL	1/1:0, 3:3:9: 91,9,0	BA .5	no
20 45 9	T A	35. 48	P A S S		AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=36.33;S OR=1.609	GT :A D: DP: GQ :PG T:P	1 1:0,1 :1:3:1 1:2045 6_T_ A:45,3 ,0:204 56	BA .5	no

ID:	PL:	PS	AC=1;AF=0.500;AN=2;BaseQRankSum=-4.550e-01;DP=336;ExcessHet=0.000;FS=0.877;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=11.67;ReadPosRankSum=-1.092e+00;SOR=0.639	GT	:A	D:	DP:	GQ	:PL	BA	no
21306	C	A	3547.64	P A S S						.5	
21536	A	C	31.64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=0.693	GT	:A	D: 0 1:1,1 :2:39: DP: 0 1:21 GQ 536_A :PG _C:39, T:P 0,39:2 ID: 1536 PL:	PS	BA	no
21538	G	C	31.64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.740e-01;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=-6.740e-01;SOR=0.693	GT	:A	D: 0 1:1,1 :2:39: DP: 0 1:21 GQ 536_A :PG _C:39, T:P 0,39:2 ID: 1536 PL:	PS	BA	no
21575	C	T	49316.06	P A S S	AC=2;AF=1.00;AN=2;DP=1377;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.20;SOR=0.850	GT	:A	D: 1 1:0,1 356:13 DP: 56:99: GQ 1 1:21 :PG 575_C _T:49 T:P 330,40 ID: 73,0:2 PL: 1575 PS	BA	yes	
21618	C	T	174015.1	P A S S	AC=2;AF=1.00;AN=2;DP=4174;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=31.45;SOR=0.973	GT	:A	D: 1/1:0, 4070:4 DP: 073:99 :17402	PS	BA	yes

21			66	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.076;DP=328;ExcessHet=0.0000;FS=1.8	GQ 9,1226			
71	C T		11	A	8;MLEAC=1;MLEAF=0.5	:PL 7,0			
1			7.6	S	00;MQ=60.00;MQRankSum=0.00;QD=21.05;ReadPosRankSum=2.97;SOR=0.742	GT 0/1:10			
			4	S		:A 16,212			
						D: 5:3141	BA		
						DP: :99:66	.5	no	
						GQ 125,0,			
						:PL 26661			
						GT			
						:A			
21			78.	P	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.0	D: 1 1:0,2			
90	T C		32	A	00;MLEAC=1;MLEAF=0.5	DP: :2:6:1			
8				S	00;MQ=60.00;QD=28.17;SOR=0.693	GQ 1:2190	BA		
				S		:PG 8_T_C	.5	no	
						T:P :90,6,0			
						ID: :21908			
						PL:			
						PS			
						GT			
						:A			
21			78.	P	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.0	D: 1 1:0,2			
91	C T		32	A	00;MLEAC=1;MLEAF=0.5	DP: :2:6:1			
0				S	00;MQ=60.00;QD=26.80;SOR=0.693	GQ 1:2190	BA		
				S		:PG 8_T_C	.5	no	
						T:P :90,6,0			
						ID: :21908			
						PL:			
						PS			
						GT			
						:A			
21			70.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=4;ExcessHet=0.0000;FS=0.000;	D: 0 1:2,2			
91	A T		64	A	MLEAC=1;MLEAF=0.500;	DP: :4:68:			
3				S	MQ=60.00;MQRankSum=0.00;QD=17.66;ReadPosRankSum=1.38;SOR=0.693	GQ 0 1:21	BA		
				S		:PG 908_T	.5	no	
						T:P _C:78,			
						ID: 0,68:2			
						PL: 1908			
						PS			
						GT 0 1:2,2			
						:A :4:68:			
21			70.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=4;ExcessHet=0.0000;FS=0.000;	D: 0 1:21			
91	C A		64	A	MLEAC=1;MLEAF=0.500;	DP: 908_T	BA		
4				S	MQ=60.00;MQRankSum=0.00;QD=17.66;ReadPosRankSum=1.38;SOR=0.693	GQ _C:78,	.5	no	
				S		:PG 0,68:2			
						T:P 1908			

ID:	PL:	PS	GT	:A	D:	DP:	GQ	:PL	BA	yes
21 98 7	G A	20 85 44. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5743;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-7.850e-01;QD=27.76;SOR=0.593	1/1:1,	5539:5	540:99	:20855	.5	yes
22 20 0	T G	20 45 88. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=4.86;DP=5704;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=29.09;ReadPosRankSum=1.01;SOR=0.592	1/1:5,	5526:5	531:99	:20460	.5	yes
22 48 0	C T	23 69 6.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=902;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.68;SOR=0.707	1/1:0,	856:85	6:99:2	3710,2	.5	yes
22 57 8	G A	15 67 59. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-7.220e-01;DP=4295;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.024;QD=26.08;ReadPosRankSum=3.94;SOR=0.490	1/1:16	,4210:	4226:9	9:1567	.5	yes
22 59 9	G C	11 32 6.6 4	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=1.56;DP=922;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=12.73;ReadPosRankSum=-1.241e+00;SOR=0.696	0/1:38	6,504:	890:99	:11334	.5	yes
22 67 4	C T	15 59 55. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-6.360e-01;DP=3682;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=33.85;ReadPosRankSum=1.70;SOR=0.318	1 1:1,3	497:34	98:99:	1 1:22	.5	yes
								:PG _T:15		
								T:P ID:		

22 67 9	T C	15 23 84. 1	P A S S	AC=2;AF=1.00;AN=2;DP=3393;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.08;SOR=0.891	PL: 0484,0 PS :22674 GT 1 1:0,3 :A 393:33 D: 93:99: DP: 1 1:22 GQ 674_C :PG _T:15 T:P 2398,1 ID: 0213,0 PL: :22674 PS	BA .5	yes
22 68 3	T A	30 5.6 4	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.730e-01;DP=69;ExcessHet=0.0000;FS=1.061;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.43;ReadPosRankSum=2.60;SOR=0.532	GT 0/1:51 :A ,18:69 D: :99:31 DP: 3,0,13 GQ 55 :PL	BA .5	no
22 68 6	C T	14 65 18. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.61;DP=3260;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=25.42;ReadPosRankSum=1.35;SOR=0.162	GT 1 1:2,3 :A 258:32 D: 60:99: DP: 1 1:22 GQ 674_C :PG _T:14 T:P 6532,9 ID: 756,0: PL: 22674 PS	BA .5	yes
22 68 8	A G	14 29 16. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.06;DP=3194;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=27.65;ReadPosRankSum=1.93;SOR=0.176	GT 1/1:2, :A 3128:3 D: 134:99 DP: :14293 GQ 0,9518 :PL ,0	BA .5	yes
22 77 5	G A	10 94 33. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.09;DP=3179;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=27.08;ReadPosRankSum=2.08;SOR=0.456	GT 1/1:26 :A ,2987: D: 3013:9 DP: 9:1094 GQ 47,824 :PL 5,0	BA .5	yes

22		17	P	AC=1;AF=0.500;AN=2;BaseQRankSum=7.25;DP=2222	GT	0/1:14			
77	A G	80	A	;ExcessHet=0.0000;FS=1.85	:A	15,698			
6		5.6	S	3;MLEAC=1;MLEAF=0.50	D:	:2126:	BA		no
		4	S	0;MQ=60.00;MQRankSum=0.00;QD=8.43;ReadPosRankSum=10.34;SOR=0.852	DP:	99:178	.5		
					GQ	13,0,3			
					:PL	9342			
22		13	P	AC=2;AF=1.00;AN=2;BaseQRankSum=2.83;DP=3063;	GT	1/1:2,			
78	A C	01	A	ExcessHet=0.0000;FS=0.00	:A	2995:2			
6		33.	S	0;MLEAC=2;MLEAF=1.00;	D:	997:99	BA		yes
		1	S	MQ=60.00;MQRankSum=0.00;QD=25.42;ReadPosRankSum=0.012;SOR=0.108	DP:	:13014	.5		
					GQ	7,8987			
					:PL	,0			
22		15	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:0,			
81	G T	62	A	3544;ExcessHet=0.0000;FS	:A	3530:3			
3		91.	S	=0.000;MLEAC=2;MLEAF	D:	530:99	BA		yes
		1	S	=1.00;MQ=60.00;QD=27.65	DP:	:15630	.5		
				;SOR=0.739	GQ	5,1062			
					:PL	0,0			
22		18	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:0,			
88	T G	48	A	4220;ExcessHet=0.0000;FS	:A	4205:4			
2		91.	S	=0.000;MLEAC=2;MLEAF	D:	205:99	BA		yes
		1	S	=1.00;MQ=60.00;QD=29.48	DP:	:18490	.5		
				;SOR=0.833	GQ	5,1265			
					:PL	2,0			
22		18	P	AC=2;AF=1.00;AN=2;BaseQRankSum=2.99;DP=4634;	GT	1/1:2,			
91	T G	86	A	ExcessHet=0.0000;FS=0.00	:A	4052:4			
7		41.	S	0;MLEAC=2;MLEAF=1.00;	D:	102:99	BA		yes
		1	S	MQ=60.00;MQRankSum=2.000e-	DP:	:18865	.5		
				03;QD=30.56;ReadPosRankSum=1.50;SOR=0.140	GQ	5,1356			
					:PL	8,0			
22		50	P	AC=2;AF=1.00;AN=2;DP=	GT				
97	G C	6.0	A	13;ExcessHet=0.0000;FS=0.	:A	1 1:0,1			
3		6	S	000;MLEAC=2;MLEAF=1.	D:	3:13:3			
			S	00;MQ=60.00;QD=30.62;SOR=0.836	DP:	9:1 1:2			
					GQ	2973_	BA		no
					:PG	G_C:5	.5		
					T:P	20,39,			
					ID:	0:2297			
					PL:	3			
					PS				

22		15	P	AC=2;AF=1.00;AN=2;Base QRankSum=-5.170e-	GT 1/1:1, :A 3570:3		
99	G A	25	A	01;DP=4218;ExcessHet=0.0	:D: 575:99	BA	yes
2		22.	S	MLEAF=1.00;MQ=60.00;M	DP: :15253	.5	
		1	S	QRankSum=0.00;QD=33.63	GQ 6,1078		
				;ReadPosRankSum=-	:PL 0,0		
				3.970e-01;SOR=0.415			
22		14	P	AC=2;AF=1.00;AN=2;DP=	GT 1/1:0, :A 2901:2		
99	C A	88	A	3322;ExcessHet=0.0000;FS	D: 902:99	BA	yes
5		79.	S	=0.000;MLEAC=2;MLEAF	DP: :14889	.5	
		1	S	=1.00;MQ=60.00;QD=29.52	GQ 3,9997		
				;SOR=1.078	:PL ,0		
23		15	P	AC=2;AF=1.00;AN=2;Base	GT 1/1:15		
01	A C	36	A	QRankSum=-	:A ,3455:		
3		24.	S	1.794e+00;DP=3475;Excess	D: 3470:9	BA	yes
		1	S	Het=0.0000;FS=0.000;MLE	DP: 9:1536	.5	
				AC=2;MLEAF=1.00;MQ=6	GQ 38,100		
				0.00;MQRankSum=0.00;QD	:PL 93,0		
				=32.62;ReadPosRankSum=0			
				.934;SOR=0.509			
23		13	P	AC=2;AF=1.00;AN=2;DP=	GT 1/1:0, :A 3028:3		
01	T G	28	A	3256;ExcessHet=0.0000;FS	D: 028:99	BA	yes
8		47.	S	=0.000;MLEAC=2;MLEAF	DP: :13286	.5	
		1	S	=1.00;MQ=60.00;QD=29.33	GQ 1,9192		
				;SOR=1.011	:PL ,0		
23		11	P	AC=2;AF=1.00;AN=2;Base	GT 1 1:32, :A 2523:2		
05	A G	20	A	QRankSum=-	D: 555:99		
5		12.	S	2.387e+00;DP=2556;Excess	DP: :1 1:23	BA	yes
		1	S	Het=0.0000;FS=0.000;MLE	GQ 055_A	.5	
				AC=2;MLEAF=1.00;MQ=6	:PG _G:11		
				0.00;MQRankSum=0.00;QD	T:P 2026,6		
				=35.36;ReadPosRankSum=-	ID: 306,0:		
				1.310e-01;SOR=0.025	PL: 23055		
					PS		
23		10	P	AC=2;AF=1.00;AN=2;Base	GT 1 1:31, :A 2434:2		
06	A T	75	A	QRankSum=-	D: 465:99	BA	yes
3		11.	S	3.064e+00;DP=2465;Excess	DP: :1 1:23	.5	
		1	S	Het=0.0000;FS=0.000;MLE	GQ 055_A		
				AC=2;MLEAF=1.00;MQ=6	:PG _G:10		
				0.00;MQRankSum=0.00;QD	T:P 7525,6		
				=34.30;ReadPosRankSum=-	ID:		
				6.910e-01;SOR=0.276			

23			10	P	AC=2;AF=1.00;AN=2;Base	PL: 033,0:		
07	T	C	35	A	QRankSum=-8.300e-	PS 23055		
5			40.	S	01;DP=2451;ExcessHet=0.0	GT 1 1:3,2		
			1	S	000;FS=0.000;MLEAC=2;	:A 346:23		
				S	MLEAF=1.00;MQ=60.00;M	D: 49:99:		
				S	QRankSum=0.00;QD=27.00	DP: 1 1:23	BA	yes
				S	;ReadPosRankSum=0.629;S	GQ 055_A	.5	
				S	OR=0.102	:PG _G:10		
				S		T:P 3554,7		
				S		ID: 078,0:		
				S		PL: 23055		
				S		PS		
23			86.	P	AC=1;AF=0.500;AN=2;Bas	GT		
08	T	C	64	A	eQRankSum=1.82;DP=42;E	:A 0/1:35		
4				S	xcessHet=0.0000;FS=0.000;	D: ,6:41:	BA	no
				S	MLEAC=1;MLEAF=0.500;	DP: 94:94,	.5	
				S	MQ=60.00;MQRankSum=0.	GQ 0,912		
				S	00;QD=2.11;ReadPosRankS	:PL		
				S	um=0.742;SOR=0.641			
23			37.	P	AC=2;AF=1.00;AN=2;DP=	GT		
15	A	G	32	A	2;ExcessHet=0.0000;FS=0.0	:A 1/1:0,		
6				S	00;MLEAC=1;MLEAF=0.5	D: 2:2:6:	BA	no
				S	00;MQ=60.00;QD=18.66;S	DP: 49,6,0	.5	
				S	OR=0.693	GQ		
				S		:PL		
23			62	P	AC=2;AF=1.00;AN=2;DP=	GT 1/1:0,		
19	C	T	59	A	2120;ExcessHet=0.0000;FS	:A 2066:2		
1			3.0	S	=0.000;MLEAC=2;MLEAF	D: 074:99	BA	yes
			6	S	=1.00;MQ=60.00;QD=30.30	DP: :62607	.5	
				S	;SOR=0.784	GQ ,6198,		
				S		:PL 0		
23			22	P	AC=2;AF=1.00;AN=2;DP=	GT		
27	G	T	6.0	A	9;ExcessHet=0.0000;FS=0.0	:A 1/1:0,		
0			5	S	00;MLEAC=2;MLEAF=1.0	D: 9:9:27	BA	yes
				S	0;MQ=60.00;QD=25.12;SO	DP: :240,2	.5	
				S	R=0.892	GQ 7,0		
				S		:PL		
23			43.	P	AC=1;AF=0.500;AN=2;Bas	GT		
31	C	T	64	A	eQRankSum=1.92;DP=15;E	:A 0/1:9,		
5				S	xcessHet=0.0000;FS=3.424;	D: 2:11:5	BA	no
				S	MLEAC=1;MLEAF=0.500;	DP: 1:51,0,	.5	
				S	MQ=60.00;MQRankSum=0.	GQ 206		
				S	00;QD=3.97;ReadPosRankS	:PL		
				S	um=1.10;SOR=2.272			

23 40 3	A G	22 59 95. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5929;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.48;SOR=0.828	GT 1/1:0, :A 5754:5 D: 754:99 DP: :22600 GQ 9,1730 :PL 5,0	BA .5	yes
23 52 0	C T	12 37 29. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.44;DP=3657;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=34.96;ReadPosRankSum=1.34;SOR=0.702	GT 1/1:18 :A ,3521: D: 3539:9 DP: 9:1237 GQ 43,100 :PL 93,0	BA .5	no
23 52 5	C T	21 94 52. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-4.170e-01;DP=5794;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=30.56;ReadPosRankSum=1.26;SOR=0.474	GT 1/1:1, :A 3904:3 D: 911:99 DP: :21946 GQ 6,1689 :PL 3,0	BA .5	yes
23 59 9	T G	22 13 46. 1	P A S S	AC=2;AF=1.00;AN=2;DP=4975;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=35.92;SOR=1.243	GT 1 1:0,4 :A 957:49 D: 57:99: DP: 1 1:23 GQ 525_C :PG _T:22 T:P 1360,1 ID: 4921,0 PL: :23525 PS	BA .5	yes
23 60 4	C A	21 40 33. 1	P A S S	AC=2;AF=1.00;AN=2;DP=4865;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.63;SOR=1.232	GT 1/1:0, :A 4742:4 D: 743:99 DP: :21404 GQ 7,1443 :PL 5,0	BA .5	yes
23 85 4	C A	12 49 08. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.835e+00;DP=3997;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=33.93;ReadPosRankSum=-9.450e-01;SOR=0.563	GT 1/1:43 :A ,3638: D: 3700:9 DP: 9:1249 GQ 22,949 :PL 2,0	BA .5	yes

23		45	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:8,			
93	A	80	A	QRankSum=0.799;DP=1571	:A	1430:1			
3	C	4.0	S	;ExcessHet=0.0000;FS=0.00	D:	438:99	BA		no
		6	S	0;MLEAC=2;MLEAF=1.00;	DP:	:45818	.5		
				MQ=60.00;MQRankSum=0.	GQ	,4082,			
				00;QD=31.85;ReadPosRank	:PL	0			
				Sum=0.854;SOR=0.413					
23		13	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:2,			
94	G	27	A	QRankSum=2.93;DP=3837;	:A	3680:3			
8	T	67.	S	ExcessHet=0.0000;FS=0.00	D:	692:99	BA		yes
		1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:13278	.5		
				MQ=60.00;MQRankSum=0.	GQ	1,1104			
				00;QD=28.76;ReadPosRank	:PL	1,0			
				Sum=-					
				2.023e+00;SOR=0.733					
23			P	AC=2;AF=1.00;AN=2;DP=	GT				
95	T	35.	A	1;ExcessHet=0.0000;FS=0.0	:A	1 1:0,1			
9	C	48	S	00;MLEAC=1;MLEAF=0.5	D:	:1:3:1			
			S	00;MQ=60.00;QD=31.26;S	DP:	1:2395			
				OR=1.609	GQ	7_G_	BA		no
					:PG	GA:45	.5		
					T:P	,3,0:23			
					ID:	957			
					PL:				
					PS				
23			P	AC=2;AF=1.00;AN=2;DP=	GT				
96	T	35.	A	1;ExcessHet=0.0000;FS=0.0	:A	1 1:0,1			
0	C	48	S	00;MLEAC=1;MLEAF=0.5	D:	:1:3:1			
			S	00;MQ=60.00;QD=27.76;S	DP:	1:2395			
				OR=1.609	GQ	7_G_	BA		no
					:PG	GA:45	.5		
					T:P	,3,0:23			
					ID:	957			
					PL:				
					PS				
23			P	AC=2;AF=1.00;AN=2;DP=	GT				
96	T	35.	A	1;ExcessHet=0.0000;FS=0.0	:A	1 1:0,1			
1	C	48	S	00;MLEAC=1;MLEAF=0.5	D:	:1:3:1			
			S	00;MQ=60.00;QD=29.09;S	DP:	1:2395			
				OR=1.609	GQ	7_G_	BA		no
					:PG	GA:45	.5		
					T:P	,3,0:23			
					ID:	957			
					PL:				
					PS				

24		17	P	AC=2;AF=1.00;AN=2;DP=	GT			
21	C	6.0	A	7;ExcessHet=0.0000;FS=0.0	:A	1/1:0,		
0	T	2	S	00;MLEAC=2;MLEAF=1.0	D:	7:7:21	BA	yes
			S	0;MQ=60.00;QD=25.15;SO	DP:	:190,2	.5	
				R=0.941	GQ	1,0		
					:PL			
24		23	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:0,		
42	A	28	A	5665;ExcessHet=0.0000;FS	:A	5508:5		
4	T	54.	S	=0.000;MLEAC=2;MLEAF	D:	513:99	BA	yes
		1	S	=1.00;MQ=60.00;QD=32.62	DP:	:23286	.5	
				;SOR=0.841	GQ	8,1656		
					:PL	4,0		
24		90	P	AC=2;AF=1.00;AN=2;Base	GT	1 1:3,2		
44	C	93	A	QRankSum=-9.650e-	:A	048:20		
2	T	2.0	S	01;DP=2173;ExcessHet=0.0	D:	51:99:		
		6	S	000;FS=0.000;MLEAC=2;	DP:	1 1:24	BA	no
				MLEAF=1.00;MQ=60.00;M	GQ	424_A	.5	
				QRankSum=0.00;QD=32.91	:PG	_T:90		
				;ReadPosRankSum=1.69;SO	T:P	946,61		
				R=0.403	ID:	38,0:2		
					PL:	4424		
					PS			
24		23	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:2,		
46	T	08	A	QRankSum=-5.040e-	:A	5441:5		
9	A	51.	S	01;DP=5510;ExcessHet=0.0	D:	446:99	BA	yes
		1	S	000;FS=0.000;MLEAC=2;	DP:	:23086	.5	
				MLEAF=1.00;MQ=60.00;M	GQ	5,1632		
				QRankSum=0.532;QD=29.3	:PL	1,0		
				3;ReadPosRankSum=1.01;S				
				OR=0.149				
24		32.	P	AC=1;AF=0.500;AN=2;Bas	GT			
51	G	64	A	eQRankSum=-9.670e-	:A	0/1:1,		
5	A		S	01;DP=3;ExcessHet=0.0000	D:	2:3:33	BA	no
			S	;FS=0.000;MLEAC=1;MLE	DP:	:40,0,3	.5	
				AF=0.500;MQ=60.00;MQR	GQ	3		
				ankSum=0.00;QD=10.88;Re	:PL			
				adPosRankSum=-9.670e-				
				01;SOR=0.223				
24		37.	P	AC=2;AF=1.00;AN=2;DP=	GT			
58	T	32	A	2;ExcessHet=0.0000;FS=0.0	:A	1/1:0,		
9	C		S	00;MLEAC=1;MLEAF=0.5	D:	2:2:6:	BA	no
			S	00;MQ=60.00;QD=18.66;S	DP:	49,6,0	.5	
				OR=0.693	GQ			
					:PL			

24998	G T	257	5.9	P A S S	AC=2;AF=1.00;AN=2;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.61;SOR=0.693	GT :A 1 1:0,6 D: :6:18: DP: 1 1:24 GQ 998_G :PG _T:27 T:P 0,18,0: ID: 24998 PL: PS	BA .5	no
25000	C T	199600.1	85.14	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.27;DP=5372;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-3.850e-01;QD=35.36;ReadPosRankSum=2.14;SOR=0.566	GT 1/1:3, :A 5221:5 D: 224:99 DP: :19961 GQ 4,1561 :PL 2,0	BA .5	yes
25169	C T	85.14	85.14	P A S S	AC=2;AF=1.00;AN=2;DP=6;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=21.29;SOR=0.693	GT :A 1/1:0, D: 4:4:12 DP: :99,12, GQ 0 :PL	BA .5	no
25290	G T	5239.64	39.64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=2.11;DP=582;ExcessHet=0.0000;FS=1.101;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=9.70;ReadPosRankSum=4.14;SOR=0.753	GT :A 0/1:29 D: 6,244: DP: 540:99 GQ :5247, :PL 0,6368	BA .5	yes
25350	C T	34499.06	9.06	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.949e+00;DP=1286;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=-28.42;ReadPosRankSum=0.074;SOR=0.236	GT 1/1:1, :A 1213:1 D: 214:99 DP: :34513 GQ ,3596, :PL 0	BA .5	no
25584	C T	214267.1	67.1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.31;DP=5821;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=34.30;ReadPosRankSum=0.542;SOR=0.652	GT 1/1:3, :A 5623:5 D: 627:99 DP: :21428 GQ 1,1684 :PL 6,0	BA .5	yes

26 02 2	C T	37. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=18.66;SOR=0.693	GT :A D: DP: GQ :PL GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1/1:0, 2:2:6: 49,6,0	BA .5	yes
26 04 2	C T	52. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.530e-01;DP=10;ExcessHet=0.0000;FS=3.310;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.26;ReadPosRankSum=0.00;SOR=2.303	:A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:8,2 :10:60 :0 1:26 042_C _T:60, 0,330: 26042	BA .5	no
26 04 4	C G	52. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.348e+00;DP=10;ExcessHet=0.0000;FS=3.310;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.26;ReadPosRankSum=0.00;SOR=2.303	:A D: DP: GQ :PG T:P ID: PL: PS	0 1:8,2 :10:60 :0 1:26 042_C _T:60, 0,330: 26042	BA .5	no
26 04 6	A G	52. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-3.190e-01;DP=10;ExcessHet=0.0000;FS=3.332;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=6.58;ReadPosRankSum=-6.190e-01;SOR=2.303	GT :A D: DP: GQ :PL	0/1:6, 2:8:60 :60,0,3 30	BA .5	no
26 06 0	C T	22 67 65. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=9.29;DP=5981;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=27.00;ReadPosRankSum=4.62;SOR=0.214	GT :A D: DP: GQ :PL	1/1:17 ,5421: 5445:9 9:2267 79,168 63,0	BA .5	yes
26 19 2	C T	17 6.0 2	P A S S	AC=2;AF=1.00;AN=2;DP=7;ExcessHet=0.0000;FS=0.00;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.15;SOR=0.941	GT :A D: DP:	1/1:0, 7:7:21 :190,2 1,0	BA .5	no

26			22	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:2,					
27	C	T	81	A	QRankSum=3.79;DP=5939;	:A	5749:5					
0			38.	S	ExcessHet=0.0000;FS=0.00	D:	753:99	BA		yes		
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:22815	.5				
					MQ=60.00;MQRankSum=0.	GQ	2,1724					
					00;QD=30.82;ReadPosRank	:PL	0,0					
					Sum=2.41;SOR=1.208							
26				P	AC=2;AF=1.00;AN=2;DP=	GT						
50	G	A	32.	A	1;ExcessHet=0.0000;FS=0.0	:A	1/1:0,					
5			48	S	00;MLEAC=1;MLEAF=0.5	D:	1:1:3:	BA		no		
				S	00;MQ=60.00;QD=32.48;S	DP:	42,3,0	.5				
					OR=1.609	GQ						
						:PL						
26			23	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:2,					
52	G	A	67	A	QRankSum=0.081;DP=5608	:A	5523:5					
9			00.	S	;ExcessHet=0.0000;FS=0.00	D:	525:99	BA		yes		
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:23671	.5				
					MQ=60.00;MQRankSum=0.	GQ	4,1656					
					00;QD=29.27;ReadPosRank	:PL	4,0					
					Sum=0.997;SOR=0.594							
26			24	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:4,					
57	C	G	80	A	5865;ExcessHet=0.0000;FS	:A	5791:5					
7			09.	S	=0.000;MLEAC=2;MLEAF	D:	798:99	BA		yes		
			1	S	=1.00;MQ=60.00;MQRankS	DP:	:24802	.5				
					um=0.00;QD=35.92;SOR=0	GQ	3,1730					
					.741	:PL	3,0					
26			23	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:5,					
70	G	A	06	A	QRankSum=3.15;DP=5971;	:A	5792:5					
9			94.	S	ExcessHet=0.0000;FS=0.00	D:	797:99	BA		yes		
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:23070	.5				
					MQ=60.00;MQRankSum=-	GQ	8,1731					
					2.000e-	:PL	3,0					
					03;QD=29.63;ReadPosRank							
					Sum=3.46;SOR=0.461							
27			21	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:5,					
01	C	T	60	A	QRankSum=0.160;DP=5784	:A	5535:5					
2			80.	S	;ExcessHet=0.0000;FS=0.00	D:	540:99	BA		yes		
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:21609	.5				
					MQ=60.00;MQRankSum=-	GQ	4,1652					
					3.510e-	:PL	3,0					
					01;QD=28.76;ReadPosRank							
					Sum=2.69;SOR=0.266							

27		14	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-3.900e-	GT	0/1:39		
03	A	19	A	01;DP=1033;ExcessHet=0.000;FS=0.526;MLEAC=1;	:A	7,567:	BA	yes
8	G	3.6	S	MLEAF=0.500;MQ=60.00;	D:	964:99	.5	
		4	S	MQRankSum=0.00;QD=14.72;ReadPosRankSum=3.22;SOR=0.733	DP:	:14201		
					GQ	,0,911		
					:PL	2		
27		39	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-	GT	0/1:14		
33	C	2.6	A	1.163e+00;DP=175;ExcessHet=0.0000;FS=0.767;MLE	:A	3,29:1	BA	no
5	T	4	S	AC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.28;ReadPosRankSum=-4.711e+00;SOR=0.849	D:	72:99:	.5	
			S		DP:	0/1:27		
					GQ	335_C		
					:PG	_T:40		
					T:P	0,0,55		
					ID:	35:273		
					PL:	35		
					PS			
27		48	P	AC=2;AF=1.00;AN=2;DP=1781;ExcessHet=0.0000;FS	GT	1/1:0,		
43	T	33	A	=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.20;SOR=0.722	:A	1714:1	BA	yes
8	C	8.0	S		D:	714:99	.5	
		6	S		DP:	:48352		
					GQ	,5130,		
					:PL	0		
27		97	P	AC=2;AF=1.00;AN=2;BaseQRankSum=-	GT	1/1:14		
47	C	11	A	4.188e+00;DP=2545;ExcessHet=0.0000;FS=0.000;MLE	:A	,2173:	BA	yes
6	T	7.0	S	AC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=26.08;ReadPosRankSum=2.80;SOR=0.004	D:	2187:9	.5	
		6	S		DP:	9:9713		
					GQ	1,6843		
					:PL	,0		
27		20	P	AC=2;AF=1.00;AN=2;BaseQRankSum=-4.290e-	GT	1/1:2,		
51	C	60	A	01;DP=5426;ExcessHet=0.000;FS=0.000;MLEAC=2;	:A	5258:5	BA	yes
3	T	59.	S	MLEAF=1.00;MQ=60.00;MQRankSum=-4.820e-	D:	260:99	.5	
		1	S	01;QD=29.94;ReadPosRankSum=1.61;SOR=0.726	DP:	:20607		
					GQ	3,1573		
					:PL	2,0		
27		65	P	AC=1;AF=0.500;AN=2;BaseQRankSum=1.20;DP=460;	GT	0/1:16		
53	C	74.	A	ExcessHet=0.0000;FS=1.148;MLEAC=1;MLEAF=0.50	:A	3,274:	BA	yes
2	T	64	S	0;MQ=60.00;MQRankSum=	D:	437:99	.5	
			S		DP:	:6582,		
					GQ	0,3345		
					:PL			

27		22	P	0.00;QD=15.04;ReadPosRankSum=0.836;SOR=0.589	GT	1/1:1,			
80	C	57	A	AC=2;AF=1.00;AN=2;BaseQRankSum=-3.750e-01;DP=5934;ExcessHet=0.000;FS=0.000;MLEAC=2;	:A	4299:4			
7	T	90.	S	MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=31.54	D:	326:99	BA	.5	yes
		1	S	;ReadPosRankSum=0.330;SOR=0.242	DP:	:22580			
					GQ	4,1711			
					:PL	3,0			
27		22	P	AC=2;AF=1.00;AN=2;BaseQRankSum=4.02;DP=5954;	GT	1/1:6,			
88	C	96	A	ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;	:A	5776:5			
9	T	49.	S	MQ=60.00;MQRankSum=0.351;QD=28.86;ReadPosRankSum=2.66;SOR=1.138	D:	782:99	BA	.5	yes
		1	S	AC=1;AF=0.500;AN=2;BaseQRankSum=-3.960e-01;DP=13;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.05;ReadPosRankSum=0.362;SOR=0.527	DP:	:22966			
					GQ	3,1720			
					:PL	8,0			
27		52.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-8.210e-01;DP=2312;ExcessHet=0.000;FS=0.546;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.74;ReadPosRankSum=0.413;SOR=0.768	GT	0/1:9,			
99	C	64	A	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	:A	4:13:6	BA	.5	no
8	T		S		D:	0:60,0,			
			S		DP:	201			
					GQ				
					:PL				
28		16	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	GT	0/1:14			
08	T	99	A	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	:A	39,757			
8	C	7.6	S	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	D:	:2196:	BA	.5	no
		4	S		DP:	99:170			
					GQ	05,0,3			
					:PL	8930			
28		70.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	GT	0 1:16,			
25	T	64	A	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=19;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=3.72;ReadPosRankSum=-2.081e+00;SOR=1.179	:A	3:19:7			
1	G		S		D:	8:0 1:2	BA	.5	no
			S		GQ	8251_			
					:PG	T_G:7			
					T:P	8,0,66			
					ID:	2:2825			
					PL:	1			
					PS				
28		70.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=20;ExcessHet=0.000	GT	0 1:16,			
25	T	64	A	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.760e-01;DP=20;ExcessHet=0.000	:A	3:19:7	BA	.5	no
2	A		A		D:	8:0 1:2			

			S	0;FS=0.000;MLEAC=1;ML	DP:	8251_		
			S	EAF=0.500;MQ=60.00;MQ	GQ	T_G:7		
				RankSum=0.00;QD=3.72;R	:PG	8,0,66		
				eadPosRankSum=-	T:P	2:2825		
				1.971e+00;SOR=1.179	ID:	1		
					PL:			
					PS			
					GT			
				AC=1;AF=0.500;AN=2;Bas	:A	0 1:16,		
				eQRankSum=-5.240e-	D:	3:19:7		
28			P	01;DP=20;ExcessHet=0.000	DP:	8:0 1:2		
25	C	A	70.	A	0;FS=0.000;MLEAC=1;ML	GQ	8251_	BA
3			64	S	EAF=0.500;MQ=60.00;MQ	:PG	T_G:7	.5
				S	RankSum=0.00;QD=3.72;R	T:P	8,0,66	no
					eadPosRankSum=-	ID:	2:2825	
					1.631e+00;SOR=1.179	PL:	1	
					PS			
					GT			
				AC=2;AF=1.00;AN=2;Base	:A	1 1:1,5		
				QRankSum=-4.060e-	D:	661:56		
28			23	P	01;DP=5985;ExcessHet=0.0	DP:	62:99:	
27	A	T	84	A	000;FS=0.000;MLEAC=2;	GQ	1 1:28	BA
1			37.	S	MLEAF=1.00;MQ=60.00;M	:PG	271_A	.5
			1	S	QRankSum=0.825;QD=29.4	T:P	_T:23	yes
					1;ReadPosRankSum=0.046;	ID:	8451,1	
					SOR=0.416	PL:	7084,0	
						PS	:28271	
						GT		
				AC=2;AF=1.00;AN=2;Base	:A	1 1:1,5		
				QRankSum=-4.950e-	D:	654:56		
28			25	P	01;DP=5656;ExcessHet=0.0	DP:	55:99:	
31	C	T	30	A	000;FS=0.000;MLEAC=2;	GQ	1 1:28	BA
1			00.	S	MLEAF=1.00;MQ=60.00;M	:PG	271_A	.5
			1	S	QRankSum=0.00;QD=31.11	T:P	_T:25	yes
					;ReadPosRankSum=1.31;SO	ID:	3014,1	
					R=0.292	PL:	6975,0	
						PS	:28271	
						GT		
				AC=2;AF=1.00;AN=2;DP=	:A	1/1:0,		
28			24	P	5383;ExcessHet=0.0000;FS	D:	5164:5	
33	A	G	03	A	=0.000;MLEAC=2;MLEAF	DP:	167:99	BA
0			37.	S	=1.00;MQ=60.00;QD=34.66	GQ	:24035	.5
			1	S	;SOR=0.807	:PL	7,0	yes
						GT		
28			35.	P	AC=2;AF=1.00;AN=2;DP=	:A	1 1:0,1	BA
34	C	T	48	A	1;ExcessHet=0.0000;FS=0.0	D:	:1:3:1	.5
4					00;MLEAC=1;MLEAF=0.5	ID:	1:2834	no

			S	00;MQ=60.00;QD=25.41;S	DP: 1_C_		
			S	OR=1.609	GQ CA:45		
					:PG ,3,0:28		
					T:P 341		
					ID:		
					PL:		
					PS		
					GT		
					:A		
					D: 1 1:0,1		
					:1:3:1		
28			P	AC=2;AF=1.00;AN=2;DP=	DP: 1:2834		
34	A C	35.	A	1;ExcessHet=0.0000;FS=0.0	GQ 1_C_ BA		
9		48	S	00;MLEAC=1;MLEAF=0.5	:PG CA:45 .5		no
			S	00;MQ=60.00;QD=28.50;S	T:P ,3,0:28		
				OR=1.609	ID: 341		
					PL:		
					PS		
					GT		
					:A 1/1:5,		
					D: 2453:2		
28		74	P	AC=2;AF=1.00;AN=2;Base	D: 458:99 BA		
50	G T	47	A	QRankSum=3.97;DP=2609;	DP: :74492 .5		yes
9		8.0	S	ExcessHet=0.0000;FS=0.00	GQ ,7296,		
		6	S	0;MLEAC=2;MLEAF=1.00;	:PL 0		
				MQ=60.00;MQRankSum=0.			
				00;QD=30.30;ReadPosRank			
				Sum=1.28;SOR=0.029			
				AC=2;AF=1.00;AN=2;Base			
				QRankSum=-	GT 1/1:17		
28		20	P	1.608e+00;DP=4835;Excess	:A ,4650:		
88	G A	79	A	Het=0.0000;FS=0.000;MLE	D: 4671:9 BA		
1		32.	S	AC=2;MLEAF=1.00;MQ=6	DP: 9:2079 .5		yes
		1	S	0.00;MQRankSum=0.090;Q	GQ 46,127		
				D=36.76;ReadPosRankSum	:PL 77,0		
				=4.16;SOR=0.079			
				AC=2;AF=1.00;AN=2;Base			
				QRankSum=-1.000e-	GT 1/1:25		
28		18	P	01;DP=4815;ExcessHet=0.0	:A ,4608:		
88	G A	07	A	000;FS=0.000;MLEAC=2;	D: 4635:9 BA		
2		09.	S	MLEAF=1.00;MQ=60.00;M	DP: 9:2083 .5		yes
		1	S	QRankSum=0.00;QD=30.54	GQ 15,128		
				;ReadPosRankSum=1.16;SO	:PL 06,0		
				R=0.165			
				AC=2;AF=1.00;AN=2;Base	GT 1/1:16		
28		20	P	QRankSum=1.57;DP=4736;	:A ,4612:		
88	G C	81	A	ExcessHet=0.0000;FS=0.00	D: 4645:9 BA		
3		33.	S	0;MLEAC=2;MLEAF=1.00;	DP: 9:2082 .5		yes
		1	S	MQ=60.00;MQRankSum=-	GQ 08,130		
				9.300e-	:PL 21,0		

28		15	P	02;QD=21.53;ReadPosRank Sum=4.93;SOR=0.079 AC=2;AF=1.00;AN=2;Base QRankSum=-	GT 1/1:12			
99	C	93	A	1.003e+00;DP=4294;Excess	:A ,4164:			
4	A	09.	S	Het=0.0000;FS=0.000;MLE	D: 4176:9	BA	yes	
		1	S	AC=2;MLEAF=1.00;MQ=6	DP: 9:1593	.5		
			S	0.00;MQRankSum=0.00;QD	GQ 23,120			
				=29.53;ReadPosRankSum=2	:PL 50,0			
				.87;SOR=0.465				
					GT			
29			P	AC=1;AF=0.500;AN=2;Bas	:A 0 1:1,1			
02	T	31.	A	eQRankSum=-6.740e-	D: :2:39:			
9	C	64	S	01;DP=2;ExcessHet=0.0000	DP: 0 1:29	BA	no	
			S	;FS=0.000;MLEAC=1;MLE	GQ 029_T	.5		
			S	AF=0.500;MQ=60.00;MQR	:PG _C:39,			
				ankSum=0.00;QD=15.82;Re	T:P 0,39:2			
				adPosRankSum=0.674;SOR	ID: 9029			
				=1.447	PL:			
					PS			
					GT			
29			P	AC=1;AF=0.500;AN=2;Bas	:A 0 1:1,1			
03	A	31.	A	eQRankSum=-6.740e-	D: :2:39:			
9	T	64	S	01;DP=2;ExcessHet=0.0000	DP: 0 1:29	BA	no	
			S	;FS=0.000;MLEAC=1;MLE	GQ 029_T	.5		
			S	AF=0.500;MQ=60.00;MQR	:PG _C:39,			
				ankSum=0.00;QD=15.82;Re	T:P 0,39:2			
				adPosRankSum=0.674;SOR	ID: 9029			
				=1.447	PL:			
					PS			
					GT			
29			P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
04	G	35.	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
9	A	48	S	00;MLEAC=1;MLEAF=0.5	GQ 1:2902	BA	no	
			S	00;MQ=60.00;QD=31.31;S	:PG 9_T_C	.5		
				OR=1.609	T:P :45,3,0			
					ID: :29029			
					PL:			
					PS			
					GT 1/1:0,			
29		67	P	AC=2;AF=1.00;AN=2;DP=	:A 2158:2			
09	G	65	A	2228;ExcessHet=0.0000;FS	D: 158:99	BA	yes	
0	T	5.0	S	=0.000;MLEAC=2;MLEAF	DP: :67669	.5		
		6	S	=1.00;MQ=60.00;QD=31.35	GQ ,6475,			
				;SOR=0.903	:PL 0			

29	C T	37. 64	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-9.340e-01;DP=16;ExcessHet=0.000	GT :A 0 1:13, D: 2:15:4 DP: 5:0 1:2	BA .5	no
18			A	0;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.51;ReadPosRankSum=-1.791e+00;SOR=0.569	GQ 9187_ :PG C_T:4 T:P 5,0,54 ID: 0:2918 PL: 7 PS GT		
7			S				
			S				
29	A G	37. 64	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-9.340e-01;DP=15;ExcessHet=0.000	GT :A 0 1:13, D: 2:15:4 DP: 5:0 1:2	BA .5	no
18			A	0;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.51;ReadPosRankSum=-1.967e+00;SOR=0.569	GQ 9187_ :PG C_T:4 T:P 5,0,54 ID: 0:2918 PL: 7 PS GT		
8			S				
			S				
29	A C	20 76 58. 1	P	AC=2;AF=1.00;AN=2;BaseQRankSum=3.92;DP=5606;ExcessHet=0.0000;FS=0.00	GT 1/1:4, :A 5290:5 D: 294:99 DP: :20767 GQ 2,1581 :PL 7,0	BA .5	yes
51			A	0;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.347;QD=34.87;ReadPosRankSum=3.36;SOR=0.420			
0			S				
			S				
29	C T	94 15 2.0 6	P	AC=2;AF=1.00;AN=2;DP=2735;ExcessHet=0.0000;FS=0.0000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.08;SOR=1.010	GT 1/1:0, :A 2588:2 D: 589:99 DP: :94166 GQ ,8038, :PL 0	BA .5	yes
61			A				
4			S				
			S				
29	C T	35 95 3.0 6	P	AC=2;AF=1.00;AN=2;BaseQRankSum=-6.040e-01;DP=1437;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=26.57;ReadPosRankSum=1.32;SOR=0.849	GT 1/1:29 :A ,1324: D: 1356:9 DP: 9:3596 GQ 7,2754 :PL ,0	BA .5	yes
63			A				
2			S				
			S				
29	C T	54 99 8.0 6	P	AC=2;AF=1.00;AN=2;DP=1539;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=33.85;SOR=0.978	GT 1/1:0, :A 1513:1 D: 513:99 DP: :55012	BA .5	yes
66			A				
6			S				
			S				

29 81 0	G T	85. 14	P A S S	AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=21.29;SOR=0.693	GQ ,4539, :PL 0 GT :A 1/1:0, D: 4:4:12 BA DP: :99,12, .5 GQ 0 :PL GT :A 1/1:0, D: 29:29: BA DP: 87:890 .5 GQ ,87,0 :PL GT :A 1 1:0,3 D: :3:9:1 DP: 1:2986 GQ 8_G_ BA :PG A:132, .5 T:P 9,0:29 ID: 868 PL: PS GT :A 1/1:0, D: 801:80 BF. DP: 1:99:2 7 GQ 7607,2 :PL 403,0 GT :A 1 1:0,5 D: 246:52 DP: 46:99: GQ 1 1:21 BF. :PG 0_G_ 7 T:P T:225 ID: 758,15 PL: 783,0: PS 210 GT :A 1/1:0, D: 172:17 BF. DP: 2:99:4 7 GQ 811,51 :PL 6,0	yes
29 86 8	G A	87 6.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=35;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.21;SOR=1.460	yes	
29 87 1	A T	11 8.8 4	P A S S	AC=2;AF=1.00;AN=2;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=35.36;SOR=1.179	no	
44	C T	27 59 3.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=850;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=34.45;SOR=1.076	yes	
21 0	G T	22 57 44. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5307;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.36;SOR=0.848	yes	
21 3	G T	47 97. 06	P A S S	AC=2;AF=1.00;AN=2;DP=175;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.89;SOR=0.815	yes	

24 1	C T	24 22 53. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5858;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.73;SOR=0.974	GT :A D: DP: GQ :PL GT :A D: DP: GQ :PL	1/1:0, 5793:5 793:99 :24226 7,1742 1,0	BF. 7	yes
67 0	T G	23 47 16. 1	P A S S	AC=2;AF=1.00;AN=2;DP=6101;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.97;SOR=0.725	GT :A D: DP: GQ :PL	1/1:0, 5920:5 948:99 :23473 0,1779 9,0	BF. 7	yes
10 85	G T	21 52 36. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5615;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.24;SOR=0.793	GT :A D: DP: GQ :PL	1/1:0, 5436:5 438:99 :21525 0,1661 2,0	BF. 7	yes
14 27	C T	13 09. 06	P A S S	AC=2;AF=1.00;AN=2;DP=55;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=26.72;SOR=0.733	GT :A D: DP: GQ :PL	1/1:0, 49:49: 99:132 3,147, 0	BF. 7	no
14 44	G A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.17;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,2 :2:6:1 1:1434 _A_A GT:90 ,6,0:14 34	BF. 7	no
14 74	T A	34. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=16;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.16;ReadPosRankSum=0.828;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:14, 2:16:4 2:0 1:1 472_A _AG:4 2,0,58 2:1472	BF. 7	no
14 79	C G	34. 64	P A	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=16;E	GT :A	0 1:14, 2:16:4	BF. 7	no

			S	xcessHet=0.0000;FS=0.000;	D:	2:0 1:1		
			S	MLEAC=1;MLEAF=0.500;	DP:	472_A		
				MQ=60.00;MQRankSum=0.	GQ	_AG:4		
				00;QD=2.16;ReadPosRankS	:PG	2,0,58		
				um=-1.526e+00;SOR=0.693	T:P	2:1472		
					ID:			
					PL:			
					PS			
					GT			
				AC=1;AF=0.500;AN=2;Bas	:A	0 1:14,		
				eQRankSum=0.00;DP=16;E	D:	2:16:4		
14	C	T	34.	xcessHet=0.0000;FS=0.000;	DP:	2:0 1:1	BF.	no
80			64	MLEAC=1;MLEAF=0.500;	GQ	472_A	7	
				MQ=60.00;MQRankSum=0.	:PG	_AG:4		
				00;QD=2.16;ReadPosRankS	T:P	2,0,58		
				um=-2.135e+00;SOR=0.693	ID:	2:1472		
					PL:			
					PS			
				AC=2;AF=1.00;AN=2;Base	GT	1/1:4,		
				QRankSum=0.148;DP=5902	:A	4385:4		
16	C	T	21	;ExcessHet=0.0000;FS=0.00	D:	393:99	BF.	yes
27			61	0;MLEAC=2;MLEAF=1.00;	DP:	:21615	7	
			43.	MQ=60.00;MQRankSum=0.	GQ	7,1673		
			1	00;QD=28.20;ReadPosRank	:PL	8,0		
				Sum=2.69;SOR=0.293				
					GT			
					:A			
				AC=2;AF=1.00;AN=2;DP=	D:	1 1:0,1		
				1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1		
17	G	A	35.	00;MLEAC=1;MLEAF=0.5	GQ	1:1727	BF.	no
27			48	00;MQ=60.00;QD=26.80;S	:PG	_G_A:	7	
				OR=1.609	T:P	45,3,0:		
					ID:	1727		
					PL:			
					PS			
					GT			
					:A			
				AC=2;AF=1.00;AN=2;DP=	D:	1 1:0,1		
				1;ExcessHet=0.0000;FS=0.0	DP:	:1:3:1		
17	A	G	35.	00;MLEAC=1;MLEAF=0.5	GQ	1:1727	BF.	no
33			48	00;MQ=60.00;QD=30.02;S	:PG	_G_A:	7	
				OR=1.609	T:P	45,3,0:		
					ID:	1727		
					PL:			
					PS			

17	C	A	35.	P	AC=2;AF=1.00;AN=2;DP=	GT			
34			48	A	1;ExcessHet=0.0000;FS=0.0	:A			
				S	00;MLEAC=1;MLEAF=0.5	D: 1 1:0,1			
				S	00;MQ=60.00;QD=31.98;S	DP: :1:3:1			
					OR=1.609	GQ 1:1727	BF.	no	
						:PG _G_A:	7		
						T:P 45,3,0:			
						ID: 1727			
						PL:			
						PS			
						GT			
						:A			
17	G	A	35.	P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
36			48	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	GQ 1:1727	BF.	no	
				S	00;MQ=60.00;QD=27.51;S	:PG _G_A:	7		
					OR=1.609	T:P 45,3,0:			
						ID: 1727			
						PL:			
						PS			
						GT			
						:A			
17	G	A	35.	P	AC=2;AF=1.00;AN=2;DP=	D: 1 1:0,1			
38			48	A	1;ExcessHet=0.0000;FS=0.0	DP: :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	GQ 1:1727	BF.	no	
				S	00;MQ=60.00;QD=29.11;S	:PG _G_A:	7		
					OR=1.609	T:P 45,3,0:			
						ID: 1727			
						PL:			
						PS			
						GT			
						:A			
17	G	C	35.	P	AC=2;AF=1.00;AN=2;DP=	1 1:0,1			
96			48	A	1;ExcessHet=0.0000;FS=0.0	GT :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	:A 1:1769			
				S	00;MQ=60.00;QD=23.23;S	D: _ATT			
					OR=1.609	DP: GTTG			
						GQ AATC	BF.	no	
						:PG CTGT	7		
						T:P GGTA			
						ID: ATT_			
						PL: A:45,3			
						PS ,0:176			
						9			
17	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=	GT 1 1:0,1			
98			48	A	1;ExcessHet=0.0000;FS=0.0	:A :1:3:1			
				S	00;MLEAC=1;MLEAF=0.5	D: 1:1769	BF.	no	
				S		DP: _ATT	7		

				00;MQ=60.00;QD=29.03;S OR=1.609	GQ GTTG :PG AATC T:P CTGT ID: GGTA PL: ATT_ PS A:45,3 0:176 9		
18 24	C T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=26.61;S OR=0.693	GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:1824 :PG _C_T: T:P 90,6,0: ID: 1824 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:1824 :PG _C_T: T:P 90,6,0: ID: 1824 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:1824 :PG _C_T: T:P 90,6,0: ID: 1824 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:1824 :PG _C_T: T:P 90,6,0: ID: 1824 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:1824 :PG _C_T: T:P 90,6,0: ID: 1824	BF. 7	no
18 27	G T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=29.20;S OR=0.693		BF. 7	no
18 30	A G	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=28.55;S OR=0.693		BF. 7	no
18 34	T C	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=34.42;S OR=0.693		BF. 7	no

18	A	G	73.	P	AC=1;AF=0.500;AN=2;BaseQRankSum=-4.310e-01;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=24.55;ReadPosRankSum=-9.670e-01;SOR=0.223	PL: PS GT :A D: 0 1:1,2 DP: :3:36: GQ 0 1:18 :PG 24_C_ T:P T:81,0 ID: ,36:18 PL: 24 PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1848 :PG _C_A: T:P 45,3,0: ID: 1848 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1848 :PG _C_A: T:P 45,3,0: ID: 1848 PL: PS	BF. 7	no
18	C	A	35.	P	AC=2;AF=1.00;AN=2;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.53;SOR=1.609	PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1848 :PG _C_A: T:P 45,3,0: ID: 1848 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1848 :PG _C_A: T:P 45,3,0: ID: 1848 PL: PS	BF. 7	no
18	T	G	35.	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=27.23;SOR=1.609	PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:1848 :PG _C_A: T:P 45,3,0: ID: 1848 PL: PS	BF. 7	no
19	C	T	22	P	AC=2;AF=1.00;AN=2;BaseQRankSum=-8.510e-01;DP=6012;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-8.500e-02;QD=25.00;ReadPosRankSum=4.21;SOR=0.722	GT 1/1:10 :A 2,5738 D: :5840: DP: 99:220 GQ 926,13 :PL 503,0	BF. 7	yes
21	T	A	35.	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=32.91;SOR=1.609	GT 1 1:0,1 :A :1:3:1 D: 1:2179 DP: _T_A: GQ 45,3,0: :PG 2179	BF. 7	no

21 80	G A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=31.31;SOR=1.609	T:P ID: PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:2179 :PG _T_A: T:P 45,3,0: ID: 2179 PL: PS GT :A D: 0 1:12, D: 3:15:4 DP: 9:0 1:2 GQ 359_T :PG _C:49, T:P 0,497: ID: 2359 PL: PS GT 0 1:1,1 :A :2:39: D: 0 1:24 DP: 22_G GQ TGTG :PG TTAA T:P ATC_ ID: G:39,0 PL: ,39:24 PS 22 GT 0 1:1,1 :A :2:39: D: 0 1:24 DP: 22_G GQ TGTG :PG TTAA T:P ATC_ ID: G:39,0 PL: ,39:24 PS 22 GT 1 1:0,1 :A :1:3:1	BF. 7	no
23 59	T C	41. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=2.83;DP=15;ExcessHet=0.0000;FS=6.990;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.78;ReadPosRankSum=-1.899e+00;SOR=2.807	BF. 7	no	
24 38	G C	31. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=0.674;SOR=0.693	BF. 7	no	
24 47	G T	31. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=0.674;SOR=0.693	BF. 7	no	
24 51	T C	35. 48	P A	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.0	BF. 7	no	

			S	00;MLEAC=1;MLEAF=0.5	D:	1:2422		
			S	00;MQ=60.00;QD=33.27;S	DP:	_GTG		
				OR=1.609	GQ	TGTT		
					:PG	AAAT		
					T:P	C_G:4		
					ID:	5,3,0:2		
					PL:	422		
					PS			
					GT			
					:A	1 1:0,1		
					D:	:1:3:1		
			P	AC=2;AF=1.00;AN=2;DP=	DP:	1:2489		
24	A	C	A	1;ExcessHet=0.0000;FS=0.0	GQ	_T_T	BF.	no
93			S	00;MLEAC=1;MLEAF=0.5	:PG	ACCA	7	
		35.	S	00;MQ=60.00;QD=29.09;S	T:P	TCA:4		
		48	S	OR=1.609	ID:	5,3,0:2		
					PL:	489		
					PS			
				AC=2;AF=1.00;AN=2;Base	GT	1/1:1,		
				QRankSum=-4.500e-	:A	5117:5		
27		20	P	01;DP=5388;ExcessHet=0.0	D:	118:99	BF.	yes
90	C	13	A	000;FS=0.000;MLEAC=2;	DP:	:20138	7	
		70.	S	MLEAF=1.00;MQ=60.00;M	GQ	4,1553		
		1	S	QRankSum=0.622;QD=29.5	:PL	3,0		
				6;ReadPosRankSum=1.27;S				
				OR=0.266				
						1 1:0,1		
					GT	:1:3:1		
					:A	1:2817		
					D:	_A_A		
			P	AC=2;AF=1.00;AN=2;DP=	DP:	AAA		
28	C	35.	A	1;ExcessHet=0.0000;FS=0.0	GQ	GAA	BF.	no
22		48	S	00;MLEAC=1;MLEAF=0.5	:PG	AAC	7	
			S	00;MQ=60.00;QD=33.85;S	T:P	AGAT		
				OR=1.609	ID:	ATAT		
					PL:	GTGA		
					PS	GC:45		
						,3,0:28		
						17		
					GT	1 1:0,1		
			P	AC=2;AF=1.00;AN=2;DP=	:A	:1:3:1		
28	T	35.	A	1;ExcessHet=0.0000;FS=0.0	D:	1:2817		
23		48	S	00;MLEAC=1;MLEAF=0.5	DP:	_A_A	BF.	no
			S	00;MQ=60.00;QD=27.08;S	GQ	AAA	7	
				OR=1.609	:PG	GAA		
					T:P	AAC		

					ID: AGAT		
					PL: ATAT		
					PS GTGA		
					GC:45		
					,3,0:28		
					17		
30		22	P	AC=2;AF=1.00;AN=2;DP=	GT 1/1:0,		
37	C T	96	A	6036;ExcessHet=0.0000;FS	:A 5808:5		
		01.	S	=0.000;MLEAC=2;MLEAF	D: 811:99	BF.	yes
		1	S	=1.00;MQ=60.00;QD=30.62	DP: :22961	7	
				;SOR=0.759	GQ 5,1733		
				AC=1;AF=0.500;AN=2;Bas	:PL 4,0		
				eQRankSum=-	GT 0/1:10		
33		17	P	1.055e+00;DP=189;Excess	:A 2,82:1		
15	C T	66.	A	Het=0.0000;FS=0.000;MLE	D: 84:99:	BF.	no
		64	S	AC=1;MLEAF=0.500;MQ=	DP: 1774,0	7	
			S	60.00;MQRankSum=0.00;Q	GQ ,2479		
				D=9.60;ReadPosRankSum=	:PL		
				0.177;SOR=0.721	GT		
					:A 1 1:0,1		
					D: :1:3:1		
35		35.	P	AC=2;AF=1.00;AN=2;DP=	DP: 1:3555		
59	A G	48	A	1;ExcessHet=0.0000;FS=0.0	GQ _T_T	BF.	no
			S	00;MLEAC=1;MLEAF=0.5	:PG GAC	7	
			S	00;MQ=60.00;QD=29.33;S	T:P ATCC		
				OR=1.609	ID: C:45,3		
					PL: ,0:355		
					PS 5		
				AC=2;AF=1.00;AN=2;Base	GT		
				QRankSum=0.514;DP=21;E	:A 1/1:1,		
35		44	P	xcessHet=0.0000;FS=3.245;	D: 18:19:	BF.	no
71	T A	0.0	A	MLEAC=2;MLEAF=1.00;	DP: 32:454	7	
		6	S	MQ=60.00;MQRankSum=0.	GQ ,32,0		
			S	00;QD=23.16;ReadPosRank	:PL		
				Sum=-	GT		
				1.195e+00;SOR=0.556	:A 1 1:0,1		
					D: :1:3:1		
36		35.	P	AC=2;AF=1.00;AN=2;DP=	DP: 1:3614	BF.	no
14	G C	48	A	1;ExcessHet=0.0000;FS=0.0	GQ _G_C:	7	
			S	00;MLEAC=1;MLEAF=0.5	:PG 45,3,0:		
			S	00;MQ=60.00;QD=35.36;S	T:P 3614		
				OR=1.609	ID:		

36	A	T	35.	P	AC=2;AF=1.00;AN=2;DP=	PL:			
35			48	A	1;ExcessHet=0.0000;FS=0.0	PS			
				S	00;MLEAC=1;MLEAF=0.5	GT			
				S	00;MQ=60.00;QD=27.00;S	:A			
					OR=1.609	D: 1 1:0,1			
						DP: :1:3:1			
						GQ 1:3635	BF.		
						:PG _A_T:	7	no	
						T:P 45,3,0:			
						ID: 3635			
						PL:			
						PS			
						GT			
						:A			
						D: 1 1:0,1			
						DP: :1:3:1			
						GQ 1:3635	BF.		
						:PG _A_T:	7	no	
						T:P 45,3,0:			
						ID: 3635			
						PL:			
						PS			
						GT			
						:A			
						D: 1 1:0,1			
						DP: :1:3:1			
						GQ 1:3635	BF.		
						:PG _A_T:	7	no	
						T:P 45,3,0:			
						ID: 3635			
						PL:			
						PS			
						GT			
						:A			
						D: 1 1:0,1			
						DP: :1:3:1			
						GQ 1:3635	BF.		
						:PG _A_T:	7	no	
						T:P 45,3,0:			
						ID: 3635			
						PL:			
						PS			
						GT			
						:A			
						D: 0/1:12			
						:A ,4:16:	BF.		
						D: 51:51,	7	no	
						DP: 0,283			

			EAF=0.500;MQ=60.00;MQ RankSum=0.00;QD=2.73;R eadPosRankSum=1.06;SOR =0.446	GQ :PL		
37 16	G A	78. 32	P A S S AC=2;AF=1.00;AN=2;DP= 2;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=31.54;S OR=0.693	GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:3716 :PG _G_A: T:P 90,6,0: ID: 3716 PL: PS GT :A 1 1:0,1 D: :1:3:1 DP: 1:3758 GQ _T_T :PG CTCG T:P GCTG ID: G:45,3 PL: ,0:375 PS 8	BF. 7	no
37 62	T C	35. 48	P A S S AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=31.11;S OR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:3758 GQ _T_T :PG CTCG T:P GCTG ID: G:45,3 PL: ,0:375 PS 8	BF. 7	no
37 65	A T	35. 48	P A S S AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=34.66;S OR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:3758 GQ _T_T :PG CTCG T:P GCTG ID: G:45,3 PL: ,0:375 PS 8	BF. 7	no
37 66	T G	35. 48	P A S S AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=29.40;S OR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:3758 GQ _T_T :PG CTCG T:P GCTG ID: G:45,3 PL: ,0:375 PS 8	BF. 7	no
37 67	A G	35. 48	P A AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0	GT :A 1 1:0,1 :A :1:3:1	BF. 7	no

			S	00;MLEAC=1;MLEAF=0.5	D:	1:3758			
			S	00;MQ=60.00;QD=36.76;SOR=1.609	DP:	_T_T			
					GQ	CTCG			
					:PG	GCTG			
					T:P	G:45,3			
					ID:	,0:375			
					PL:	8			
					PS				
					GT				
					:A	0 1:1,1			
				AC=1;AF=0.500;AN=2;DP	D:	:2:39:			
			P	=2;ExcessHet=0.0000;FS=0.	DP:	0 1:38			
38	C	A	31.	A	000;MLEAC=1;MLEAF=0.	GQ	18_A_	BF.	no
21			64	S	500;MQ=60.00;MQRankSu	:PG	AATC	7	
				S	m=0.00;QD=15.82;SOR=0.	T:P	T:39,0		
					693	ID:	,39:38		
						PL:	18		
						PS			
					AC=2;AF=1.00;AN=2;Base	GT			
					QRankSum=0.00;DP=21;Ex	:A	1/1:1,		
40	T	C	45	P	cessHet=0.0000;FS=0.000;	D:	20:21:	BF.	no
57			6.0	A	MLEAC=2;MLEAF=1.00;	DP:	38:470	7	
			6	S	MQ=60.00;MQRankSum=0.	GQ	,38,0		
				S	00;QD=21.72;ReadPosRank	:PL			
					Sum=-				
					1.079e+00;SOR=0.223				
					AC=2;AF=1.00;AN=2;Base	GT	1/1:30		
					QRankSum=0.721;DP=4035	:A	6,3563		
41	T	C	10	P	;ExcessHet=0.0000;FS=0.00	D:	:3869:	BF.	no
20			65	A	0;MLEAC=2;MLEAF=1.00;	DP:	99:106	7	
			93.	S	MQ=60.00;MQRankSum=0.	GQ	607,17		
			1	S	00;QD=27.55;ReadPosRank	:PL	06,0		
					Sum=2.69;SOR=0.597				
					AC=2;AF=1.00;AN=2;Base	GT	1/1:31		
					QRankSum=-	:A	,2980:		
41	G	A	20	P	1.870e+00;DP=5580;Excess	D:	3027:9	BF.	yes
84			66	A	Het=0.0000;FS=0.000;MLE	DP:	9:2066	7	
			78.	S	AC=2;MLEAF=1.00;MQ=6	GQ	92,147		
			1	S	0.00;MQRankSum=0.00;QD	:PL	84,0		
					=28.17;ReadPosRankSum=3				
					.82;SOR=0.028				
					AC=2;AF=1.00;AN=2;Base	GT	1/1:25		
43	C	T	20	P	QRankSum=1.43;DP=5569;	:A	,5383:	BF.	yes
21			57	A	ExcessHet=0.0000;FS=0.00	D:	5408:9	7	
			51.	S	0;MLEAC=2;MLEAF=1.00;	DP:	9:2057		
			1	S	MQ=60.00;MQRankSum=-				

					1.460e-01;QD=26.80;ReadPosRankSum=7.94;SOR=0.769	GQ 65,154 :PL 49,0		
49 01	C T	35. 48	P A S S		AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.50;MQ=60.00;QD=34.17;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:4901 :PG _C_T: T:P 45,3,0: ID: 4901 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:4901 :PG _C_T: T:P 45,3,0: ID: 4901 PL: PS GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:4901 :PG _C_T: T:P 45,3,0: ID: 4901 PL: PS GT 0 1:9,2 :A :11:57 D: :0 1:53 DP: 25_A_ GQ AATT :PG ACTT T:P GCA ID: AT:57 PL: ,0,372: PS 5325	BF. 7	no
49 05	A C	35. 48	P A S S		AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.50;MQ=60.00;QD=28.60;SOR=1.609	GT 0 1:9,2 :A :11:57 D: :0 1:53 DP: 25_A_ GQ AATT :PG ACTT T:P GCA ID: AT:57 PL: ,0,372: PS 5325	BF. 7	no
53 30	A C	49. 64	P A S S		AC=1;AF=0.500;AN=2;BaseQRankSum=-2.300e-01;DP=11;ExcessHet=0.000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.51;ReadPosRankSum=-2.362e+00;SOR=0.527	GT 1/1:3, :A 5540:5 D: 549:99 DP: :22507 GQ 3,1674 :PL 8,0	BF. 7	no
55 12	C T	22 50 59. 1	P A S S		AC=2;AF=1.00;AN=2;BaseQRankSum=-3.600e-01;DP=5811;ExcessHet=0.000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=26.80;ReadPosRankSum=1.54;SOR=0.664	GT 0/1:65 :A ,37:10 D: 2:99:7 DP: 61,0,1 ID: 355	BF. 7	yes
56 28	C T	75 3.6 4	P A S S		AC=1;AF=0.500;AN=2;BaseQRankSum=2.72;DP=106;ExcessHet=0.0000;FS=0.772;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=		BF. 7	no

56	A	T	73.			0.00;QD=7.39;ReadPosRankSum=-1.250e-01;SOR=0.665	GQ				
95			64	P	A	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=24.55;ReadPosRankSum=0.967;SOR=0.223	:PL	GT	:A	0 1:1,2	
				S	S			D:	:3:36:		
								DP:	0 1:56	BF.	no
								GQ	95_A_	7	
								:PG	T:81,0		
								T:P	,36:56		
								ID:	95		
								PL:			
								PS			
								GT			
								:A	0 1:1,2		
								D:	:3:36:		
								DP:	0 1:56	BF.	no
								GQ	95_A_	7	
								:PG	T:81,0		
								T:P	,36:56		
								ID:	95		
								PL:			
								PS			
								GT			
								:A	1/1:1,		
								D:	3954:4		
								DP:	052:99	BF.	yes
								GQ	:22405	7	
								:PL	4,1718		
									2,0		
								GT			
								:A	0 1:4,4		
								D:	:8:99:		
								DP:	0 1:62	BF.	no
								GQ	66_G_	7	
								:PG	GA:11		
								T:P	5,0,15		
								ID:	6:6266		
								PL:			
								PS			
								GT	0 1:5,4		
								:A	:9:99:		
								D:	0 1:64	BF.	no
								DP:	04_G_	7	
								GQ	T:153,		

				ankSum=0.00;QD=16.18;Re	:PG	0,198:		
				adPosRankSum=-	T:P	6404		
				1.803e+00;SOR=0.446	ID:			
					PL:			
					PS			
					GT			
				AC=1;AF=0.500;AN=2;Bas	:A			
				eQRankSum=-5.890e-	D:	0 1:8,4		
				01;DP=12;ExcessHet=0.000	DP:	:12:99		
64	T	G	13	P	01;FS=0.000;MLEAC=1;ML	:0 1:64		
07			6.6	A	EAF=0.500;MQ=60.00;MQ	GQ	BF.	no
			4	S	RankSum=0.00;QD=11.39;	:PG	7	
				S	ReadPosRankSum=-	T:144,		
					1.803e+00;SOR=0.368	T:P		
						ID:		
						6404		
						PL:		
						PS		
						GT		
				AC=1;AF=0.500;AN=2;Bas	:A			
				eQRankSum=-7.990e-	D:	0 1:8,4		
				01;DP=12;ExcessHet=0.000	DP:	:12:99		
64	A	T	13	P	01;FS=0.000;MLEAC=1;ML	:0 1:64		
11			6.6	A	EAF=0.500;MQ=60.00;MQ	GQ	BF.	no
			4	S	RankSum=0.00;QD=11.39;	:PG	7	
				S	ReadPosRankSum=-	T:144,		
					1.169e+00;SOR=0.368	T:P		
						ID:		
						6404		
						PL:		
						PS		
						GT		
				AC=1;AF=0.500;AN=2;Bas	:A			
				eQRankSum=-7.990e-	D:	0 1:8,4		
				01;DP=12;ExcessHet=0.000	DP:	:12:99		
64	A	C	13	P	01;FS=0.000;MLEAC=1;ML	:0 1:64		
14			6.6	A	EAF=0.500;MQ=60.00;MQ	GQ	BF.	no
			4	S	RankSum=0.00;QD=11.39;	:PG	7	
				S	ReadPosRankSum=-	T:144,		
					3.087e+00;SOR=0.368	T:P		
						ID:		
						6404		
						PL:		
						PS		
						GT		
				AC=1;AF=0.500;AN=2;Bas	:A	:9:99:		
				eQRankSum=-	D:	0 1:67		
				1.085e+00;DP=9;ExcessHet	DP:	18_T_		
67	A	G	14	P	=0.0000;FS=0.000;MLEAC	GQ	BF.	no
29			5.6	A	=1;MLEAF=0.500;MQ=60.	TAGT	7	
			4	S	00;MQRankSum=0.00;QD=	:PG		
				S	16.18;ReadPosRankSum=-	TGTA		
					1.803e+00;SOR=0.446	T:P		
						CTA:1		
						ID:		
						53,0,1		
						PL:		
						98:671		
						PS		
						8		

67	C	T	37	P	AC=2;AF=1.00;AN=2;Base	GT			
30			5.7	A	QRankSum=0.514;DP=21;E	:A	1/1:2,		
			4	S	xcessHet=0.0000;FS=0.000;	D:	17:19:	BF.	no
				S	MLEAC=1;MLEAF=0.500;	DP:	7:388,	7	
				S	MQ=60.00;MQRankSum=0.	GQ	7,0		
				S	00;QD=19.78;ReadPosRank	:PL			
					Sum=-				
					1.951e+00;SOR=0.804				
67	T	A	47.	P	AC=1;AF=0.500;AN=2;DP	GT			
79			08	A	=2;ExcessHet=0.0000;FS=0.	:A	0/1:0,		
				S	000;MLEAC=1;MLEAF=0.	D:	1:2:14	BF.	no
				S	500;MQ=60.00;QD=30.36;S	DP:	:39,0,1	7	
				S	OR=0.693	GQ	4		
						:PL			
67	A	G	52.	P	AC=1;AF=0.500;AN=2;Bas	GT			
85			64	A	eQRankSum=-8.440e-	:A	0/1:22		
				S	01;DP=25;ExcessHet=0.000	D:	,3:25:	BF.	no
				S	0;FS=0.000;MLEAC=1;ML	DP:	60:60,	7	
				S	EAF=0.500;MQ=60.00;MQ	GQ	0,889		
				S	RankSum=0.00;QD=2.11;R	:PL			
				S	eadPosRankSum=0.378;SO				
					R=1.179				
68	G	A	12	P	AC=1;AF=0.500;AN=2;Bas	GT	0/1:37		
50			81	A	eQRankSum=1.27;DP=4752	:A	87,738		
			0.6	S	;ExcessHet=0.0000;FS=1.53	D:	:4525:	BF.	no
			4	S	0;MQ=60.00;MQRankSum=	DP:	99:128	7	
				S	0.00;QD=2.83;ReadPosRan	GQ	18,0,1		
				S	kSum=-	:PL	20599		
					5.467e+00;SOR=0.842				
70	G	A	47	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:2,		
58			75.	A	QRankSum=0.696;DP=198;	:A	172:17		
			06	S	ExcessHet=0.0000;FS=0.00	D:	4:99:4	BF.	no
				S	0;MLEAC=2;MLEAF=1.00;	DP:	789,47	7	
				S	MQ=60.00;MQRankSum=0.	GQ	2,0		
				S	00;QD=27.44;ReadPosRank	:PL			
					Sum=-				
					1.208e+00;SOR=0.693				
75	C	T	23	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:99		
28			13	A	QRankSum=0.838;DP=6152	:A	,4495:		
			52.	S	;ExcessHet=0.0000;FS=0.00	D:	4606:9	BF.	yes
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	9:2313	7	
				S	MQ=60.00;MQRankSum=0.	GQ	66,140		
				S	033;QD=26.00;ReadPosRan	:PL	88,0		
				S	kSum=6.57;SOR=0.658				

77 82	A G	25 02. 06	P A S S	AC=2;AF=1.00;AN=2;DP=90;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.44;SOR=0.979	GT :A D: DP: GQ :PL GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0, 85:85: 99:251 6,254, 0	BF. 7	yes
78 40	C A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=35.18;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,2 :2:6:1 1:7831 _TA_ T:90,6 ,0:783 1	BF. 7	no
79 69	T A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=34.86;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,2 :2:6:1 1:7969 _T_A: 90,6,0: 7969	BF. 7	no
79 72	A C	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.05;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,2 :2:6:1 1:7969 _T_A: 90,6,0: 7969	BF. 7	no
79 98	C A	73. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=3;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=24.55;ReadPosRankSum=0.00;SOR=0.223	GT :A D: DP: GQ :PG T:P ID: PL: PS GT :A D: DP: GQ :PG T:P ID: PL: PS	0 1:1,2 :3:36: 0 1:79 96_G_ GGG ATTG GTT:8 1,0,36: 7996	BF. 7	no

82 26	G T	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=30.31;SOR=0.693	GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:8226 BF. :PG _G_T: 7 no T:P 90,6,0: ID: 8226 PL: PS GT :A D: 1 1:0,2 DP: :2:6:1 GQ 1:8226 BF. :PG _G_T: 7 no T:P 90,6,0: ID: 8226 PL: PS GT 1/1:0, :A 5322:5 D: 322:99 BF. DP: :21670 7 yes GQ 1,1600 :PL 6,0
82 27	T A	78. 32	P A S S	AC=2;AF=1.00;AN=2;DP=2;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.84;SOR=0.693	GT 1/1:15 :A ,5125: D: 5140:9 BF. DP: 9:2107 7 yes GQ 55,149 :PL 00,0
93 44	C T	21 66 87. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5481;ExcessHet=0.0000;FS=0.0000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.02;SOR=0.945	GT 1/1:2, :A 5408:5 BF. D: 415:99 7 yes DP: :20955 GQ 6,1620 :PL 6,0
94 24	A G	21 07 41. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=0.984;DP=5328;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-1.620e-01;QD=31.98;ReadPosRankSum=2.64;SOR=0.022	GT 1/1:3, :A 5696:5 BF. D: 699:99 7 yes DP: :22548
95 34	C T	20 95 42. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.48;DP=5597;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=27.51;ReadPosRankSum=1.67;SOR=0.733	GT 1/1:3, :A 5696:5 BF. D: 699:99 7 yes DP: :22548
10 02 9	C T	22 54 66. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.400e+00;DP=5887;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=6	GT 1/1:3, :A 5696:5 BF. D: 699:99 7 yes DP: :22548

10					0.00;MQRankSum=0.00;QD	GQ	0,1699			
16	T	G	73.		=29.11;ReadPosRankSum=1	:PL	6,0			
2			64	P	.78;SOR=0.398					
				A	AC=1;AF=0.500;AN=2;Bas	GT				
				S	eQRankSum=0.00;DP=3;Ex	:A	0 1:1,2			
				S	cessHet=0.0000;FS=0.000;	D:	:3:36:			
					MLEAC=1;MLEAF=0.500;	DP:	0 1:10			
					MQ=60.00;MQRankSum=0.	GQ	157_G	BF.		no
					00;QD=24.55;ReadPosRank	:PG	TA_G	7		
					Sum=0.967;SOR=0.223	T:P	:81,0,3			
						ID:	6:1015			
						PL:	7			
						PS				
10			23	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:4,			
19	C	T	45	A	QRankSum=2.76;DP=6147;	:A	5899:5			
8			21.	S	ExcessHet=0.0000;FS=0.00	D:	916:99	BF.		yes
			1	S	MQ=60.00;MQRankSum=-	DP:	:23453	7		
					4.510e-	GQ	5,1763			
					01;QD=28.08;ReadPosRank	:PL	7,0			
					Sum=2.91;SOR=0.965					
10			25	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:1,			
44	G	A	35	A	6092;ExcessHet=0.0000;FS	:A	4318:4			
7			75.	S	=0.000;MLEAC=2;MLEAF	D:	435:99	BF.		yes
			1	S	=1.00;MQ=60.00;MQRankS	DP:	:25358	7		
					um=0.254;QD=23.23;SOR=	GQ	9,1706			
					1.073	:PL	9,0			
10			25	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:31			
44	C	A	08	A	QRankSum=-8.140e-	:A	,4303:			
9			68.	S	01;DP=5839;ExcessHet=0.0	D:	4339:9	BF.		yes
			1	S	000;FS=0.000;MLEAC=2;	DP:	9:2508	7		
					MLEAF=1.00;MQ=60.00;M	GQ	82,157			
					QRankSum=0.00;QD=29.03	:PL	20,0			
					;ReadPosRankSum=5.43;SO					
					R=0.227					
10			57	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:3,			
61	C	T	71.	A	QRankSum=0.621;DP=234;	:A	219:22			
5			06	S	ExcessHet=0.0000;FS=0.00	D:	2:99:5	BF.		yes
				S	0;MLEAC=2;MLEAF=1.00;	DP:	785,59	7		
					MQ=60.00;MQRankSum=0.	GQ	0,0			
					00;QD=26.00;ReadPosRank	:PL				
					Sum=-					
					2.708e+00;SOR=0.396					
10			78.	P	AC=2;AF=1.00;AN=2;DP=	GT	1 1:0,2			
79	T	A	32	A	2;ExcessHet=0.0000;FS=0.0	:A	:2:6:1	BF.		no
2					00;MLEAC=1;MLEAF=0.5	D:	1:1078	7		

			S	00;MQ=60.00;QD=28.65;S	DP: 7_G_		
			S	OR=0.693	GQ GACC		
					:PG CCTT		
					T:P AC:90		
					ID: ,6,0:10		
					PL: 787		
					PS		
					GT		
					:A 1 1:0,2		
					:2:6:1		
					D: 1:1078		
10			P	AC=2;AF=1.00;AN=2;DP=	DP: 7_G_		
79	T G	78.	A	2;ExcessHet=0.0000;FS=0.0	GQ GACC	BF.	no
4		32	S	00;MLEAC=1;MLEAF=0.5	:PG CCTT	7	
			S	00;MQ=60.00;QD=28.44;S	T:P AC:90		
				OR=0.693	ID: ,6,0:10		
					PL: 787		
					PS		
					GT		
					:A 1 1:0,2		
					:2:6:1		
					D: 1:1078		
10			P	AC=2;AF=1.00;AN=2;DP=	DP: 7_G_		
79	C A	78.	A	2;ExcessHet=0.0000;FS=0.0	GQ GACC	BF.	no
8		32	S	00;MLEAC=1;MLEAF=0.5	:PG CCTT	7	
			S	00;MQ=60.00;QD=35.95;S	T:P AC:90		
				OR=0.693	ID: ,6,0:10		
					PL: 787		
					PS		
					GT		
					:A 0 1:6,2		
					D: :8:66:		
					DP: 0 1:11		
11			P	AC=1;AF=0.500;AN=2;Bas	GQ 202_C	BF.	no
20	C G	58.	A	eQRankSum=-3.660e-	:PG _G:66,	7	
2		64	S	01;DP=9;ExcessHet=0.0000	T:P 0,246:		
			S	;FS=0.000;MLEAC=1;MLE	PL: 11202		
				AF=0.500;MQ=60.00;MQR	PS		
				ankSum=0.00;QD=7.33;Rea	GT 1 1:0,1		
				dPosRankSum=-	:A :1:3:1		
				2.100e+00;SOR=0.307	D: 1:1122		
					DP: 1_G_		
11			P	AC=2;AF=1.00;AN=2;DP=	GQ GAAT	BF.	no
22	C A	30.	A	2;ExcessHet=0.0000;FS=0.0	:PG GTGT	7	
4		48	S	00;MLEAC=1;MLEAF=0.5	T:P A:40,3		
				00;MQ=60.00;QD=30.48;S	ID: ,0:112		
				OR=1.609	21		

11				P	AC=2;AF=1.00;AN=2;DP=	PL:			
83	G	C	78.	A	2;ExcessHet=0.0000;FS=0.0	PS			
1			32	S	00;MLEAC=1;MLEAF=0.5	GT			
				S	00;MQ=60.00;QD=28.50;S	:A	1 1:0,2		
					OR=0.693	D:	:2:6:1		
						DP:	1:1183	BF.	no
						GQ	1_G_	7	
						:PG	C:90,6		
						T:P	,0:118		
						ID:	31		
						PL:			
						PS			
						GT			
						:A	1 1:0,1		
11				P	AC=2;AF=1.00;AN=2;DP=	D:	:1:3:1		
85	T	G	35.	A	1;ExcessHet=0.0000;FS=0.0	DP:	1:1185	BF.	no
9			48	S	00;MLEAC=1;MLEAF=0.5	GQ	9_T_	7	
				S	00;MQ=60.00;QD=26.72;S	:PG	G:45,3		
					OR=1.609	T:P	,0:118		
						ID:	59		
						PL:			
						PS			
						GT			
						:A	1 1:0,1		
11				P	AC=2;AF=1.00;AN=2;DP=	D:	:1:3:1		
86	A	C	35.	A	1;ExcessHet=0.0000;FS=0.0	DP:	1:1185	BF.	no
0			48	S	00;MLEAC=1;MLEAF=0.5	GQ	9_T_	7	
				S	00;MQ=60.00;QD=24.84;S	:PG	G:45,3		
					OR=1.609	T:P	,0:118		
						ID:	59		
						PL:			
						PS			
						GT			
						:A	1 1:0,1		
11				P	AC=2;AF=1.00;AN=2;DP=	D:	:1:3:1		
86	G	T	35.	A	1;ExcessHet=0.0000;FS=0.0	DP:	1:1185	BF.	no
3			48	S	00;MLEAC=1;MLEAF=0.5	GQ	9_T_	7	
				S	00;MQ=60.00;QD=25.31;S	:PG	G:45,3		
					OR=1.609	T:P	,0:118		
						ID:	59		
						PL:			
						PS			
						GT	0 1:1,1		
12				P	AC=1;AF=0.500;AN=2;Bas	:A	:2:39:	BF.	no
00	C	A	31.	A	eQRankSum=0.00;DP=2;Ex	D:	0 1:12	7	
5			64	S	cessHet=0.0000;FS=0.000;	DP:	005_C		
				S	MLEAC=1;MLEAF=0.500;				

				MQ=60.00;MQRankSum=0.00;QD=15.82;ReadPosRankSum=0.674;SOR=0.693	GQ	_A:39,		
					:PG	0,39:1		
					T:P	2005		
					ID:			
					PL:			
					PS			
					GT			
					:A			
					D:	0 1:1,1		
					DP:	:2:39:		
12			P	AC=1;AF=0.500;AN=2;DP=2;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=15.82;SOR=0.693	DP:	0 1:12		
00	T	C	A		GQ	005_C	BF.	no
6			S		:PG	_A:39,	7	
			S		T:P	0,39:1		
					ID:	2005		
					PL:			
					PS			
					GT			
					:A			
					D:	1 1:0,1		
					DP:	:1:3:1		
12			P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=31.63;SOR=1.609	GQ	1:1200	BF.	no
00	T	C	A		:PG	5_C_	7	
9			S		T:P	A:45,3		
					ID:	,0:120		
					PL:	05		
					PS			
					GT			
					:A			
					D:	1/1:17		
					:A	,5957:		
12			P	AC=2;AF=1.00;AN=2;BaseQRankSum=1.39;DP=6233;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-2.220e-01;QD=23.23;ReadPosRankSum=4.35;SOR=0.066	D:	5976:9	BF.	yes
16	G	A	A		DP:	9:2360	7	
0			S		GQ	41,173		
			S		:PL	36,0		
					GT			
					:A	1 1:0,1		
					D:	:1:3:1		
					DP:	1:1242		
12			P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=32.70;SOR=1.609	GQ	8_G_	BF.	no
43	T	C	A		:PG	GAAT	7	
0			S		T:P	TA:45		
					ID:	,3,0:12		
					PL:	428		
					PS			

12 64 0	T A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.96;SOR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:1263 GQ 8_C_ :PG CTT:4 T:P 5,3,0:1 ID: 2638 PL: PS GT 1 1:0,1 :A :1:3:1 D: 1:1269 DP: 5_C_ GQ CACA :PG CAG T:P AGTC ID: TA:45 PL: ,3,0:12 PS 695	BF. 7	no
12 69 7	T A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=29.19;SOR=1.609	GT :A 0/1:4, D: 4:8:75 DP: :75,0,7 GQ 5 :PL	BF. 7	no
12 84 4	G T	67. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=8.45;ReadPosRankSum=0.816;SOR=0.693	GT :A 1/1:4, D: 5070:5 D: 074:99 DP: :18889 GQ 0,1506 :PL 4,0	BF. 7	yes
12 88 0	C T	18 88 76. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.492e+00;DP=5286;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.301;QD=29.20;ReadPosRankSum=2.40;SOR=1.006	GT :A 1 1:0,1 D: :1:3:1 DP: 1:1317 GQ 1_T_T :PG ATAG T:P AA:45 ID: ,3,0:13 PL: 171 PS	BF. 7	yes
13 17 3	G A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.00;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=30.34;SOR=1.609		BF. 7	no

13 33 9	T G	77 0.6 4	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.348;DP=287;ExcessHet=0.0000;FS=1.797;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.71;ReadPosRankSum=1.34;SOR=0.861	GT :A D: DP: GQ :PL	0/1:22 5,59:2 84:99: 778,0, 5323	BF. 7	no
13 54 0	G A	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.100e+00;DP=9;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=-1.242e+00;SOR=0.307	GT :A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:6,2 :8:66: 0 1:13 540_G _A:66, 0,246: 13540	BF. 7	no
13 54 6	G A	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.100e+00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=-1.242e+00;SOR=0.307	GT :A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:6,2 :8:66: 0 1:13 540_G _A:66, 0,246: 13540	BF. 7	no
13 54 7	A C	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.100e+00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=-2.100e+00;SOR=0.307	GT :A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:6,2 :8:66: 0 1:13 540_G _A:66, 0,246: 13540	BF. 7	no
13 54 9	A T	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.100e+00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=-2.100e+00;SOR=0.307	GT :A D: DP: GQ :PG T:P ID:	0 1:6,2 :8:66: 0 1:13 540_G _A:66, 0,246: 13540	BF. 7	no

						PL: PS			
					AC=1;AF=0.500;AN=2;BaseQRankSum=-	GT 0/1:48			
14		22	P		3.358e+00;DP=6062;Excess	:A 34,106			
12	G	51	A		Het=0.0000;FS=0.000;MLE	D: 8:5902	BF.		no
6	A	8.6	S		AC=1;MLEAF=0.500;MQ=	DP: :99:22	7		
		4	S		60.00;MQRankSum=0.00;Q	GQ 526,0,			
					D=3.82;ReadPosRankSum=-	:PL 16815			
					-1.090e+00;SOR=0.712	6			
					AC=2;AF=1.00;AN=2;DP=	GT 1/1:0,			
14		19	P		5320;ExcessHet=0.0000;FS	:A 2777:2			
18	G	34	A		=0.000;MLEAC=2;MLEAF	D: 904:99	BF.		yes
1	C	26.	S		=1.00;MQ=60.00;QD=30.67	DP: :19344	7		
		1	S		;SOR=1.242	GQ 0,1520			
					AC=2;AF=1.00;AN=2;Base	:PL 4,0			
					QRankSum=-5.540e-	GT 1/1:3,			
14		47	P		01;DP=179;ExcessHet=0.00	:A 169:17			
26	C	06.	A		00;FS=2.147;MLEAC=2;M	D: 2:99:4	BF.		no
5	T	06	S		LEAF=1.00;MQ=60.00;MQ	DP: 720,42	7		
			S		RankSum=0.00;QD=27.36;	GQ 8,0			
					ReadPosRankSum=-2.690e-	:PL			
					01;SOR=0.484				
					AC=2;AF=1.00;AN=2;Base	GT 1/1:8,			
14		21	P		QRankSum=-1.810e-	:A 5449:5			
40	C	16	A		01;DP=5754;ExcessHet=0.0	D: 525:99	BF.		yes
8	T	46.	S		000;FS=0.000;MLEAC=2;	DP: :21166	7		
		1	S		MLEAF=1.00;MQ=60.00;M	GQ 0,1612			
					QRankSum=0.285;QD=28.5	:PL 9,0			
					5;ReadPosRankSum=0.849;				
					SOR=0.577	GT			
					AC=2;AF=1.00;AN=2;DP=	:A 1 1:0,1			
14		35.	P		1;ExcessHet=0.0000;FS=0.0	D: :1:3:1			
97	A	48	A		00;MLEAC=1;MLEAF=0.5	DP: 1:1497	BF.		no
7	G		S		00;MQ=60.00;QD=26.13;S	GQ 7_A_	7		
			S		OR=1.609	:PG G:45,3			
						T:P ,0:149			
						ID: 77			
						PL:			
						PS			
14		35.	P		AC=2;AF=1.00;AN=2;DP=	GT 1 1:0,1			
98	T	48	A		1;ExcessHet=0.0000;FS=0.0	:A :1:3:1	BF.		no
2	A		S		00;MLEAC=1;MLEAF=0.5	D: 1:1497	7		
			S			DP: 7_A_			

				00;MQ=60.00;QD=29.87;S OR=1.609	GQ G:45,3 :PG ,0:149 T:P 77 ID: PL: PS		
15 44 4	G T	21 32 83. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=2.06;DP=5790; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=26.61;ReadPosRank Sum=2.03;SOR=0.811	GT 1/1:2, :A 5584:5 D: 591:99 DP: :21329 GQ 7,1674 :PL 8,0	BF. 7	no
15 45 1	G A	98 2.0 6	P A S S	AC=2;AF=1.00;AN=2;DP= 38;ExcessHet=0.0000;FS=0. 000;MLEAC=2;MLEAF=1. 00;MQ=60.00;QD=26.54;S OR=0.746	GT :A 1/1:0, D: 37:37: DP: 99:996 GQ ,111,0 :PL	BF. 7	no
15 71 4	C T	22 89 44. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=2.73;DP=6107; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=34.42;ReadPosRank Sum=2.84;SOR=0.631	GT 1/1:3, :A 5254:5 D: 257:99 DP: :22895 GQ 8,1760 :PL 2,0	BF. 7	yes
15 86 5	C A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=28.89;S OR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:1585 GQ 6_AC :PG T_A:4 T:P 5,3,0:1 ID: 5856 PL: PS GT :A 1 1:0,1 D: :1:3:1 DP: 1:1592 GQ 7_T_T :PG TGAA T:P CATG ID: :45,3,0 PL: :15927 PS	BF. 7	no
15 93 2	A T	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP= 1;ExcessHet=0.0000;FS=0.0 00;MLEAC=1;MLEAF=0.5 00;MQ=60.00;QD=32.35;S OR=1.609	GT :A 1 1:0,1 D: :1:3:1 DP: 1:1592 GQ 7_T_T :PG TGAA T:P CATG ID: :45,3,0 PL: :15927 PS	BF. 7	no

16				P	AC=2;AF=1.00;AN=2;DP=	GT			
09	C	T	35.	A	1;ExcessHet=0.0000;FS=0.0	:A	1 1:0,1		
2			48	S	00;MLEAC=1;MLEAF=0.5	D:	:1:3:1		
				S	00;MQ=60.00;QD=29.61;S	DP:	1:1608		
					OR=1.609	GQ	9_G_	BF.	no
						:PG	GTCT	7	
						T:P	GGCT		
						ID:	:45,3,0		
						PL:	:16089		
						PS			
16			11	P	AC=2;AF=1.00;AN=2;Base	GT			
48	A	G	94	A	QRankSum=1.29;DP=470;E	:A	1/1:20		
2			7.0	S	xcessHet=0.0000;FS=0.000;	D:	,437:4		
			6	S	MLEAC=2;MLEAF=1.00;	DP:	57:99:	BF.	no
					MQ=60.00;MQRankSum=0.	GQ	11961,	7	
					00;QD=26.14;ReadPosRank	:PL	841,0		
					Sum=1.72;SOR=0.698				
						GT			
16			10	P	AC=1;AF=0.500;AN=2;Bas	:A	0 1:33,		
93	G	T	3.6	A	eQRankSum=0.417;DP=39;	D:	5:38:9		
5			4	S	ExcessHet=0.0000;FS=1.85	DP:	9:0 1:1		
				S	4;MLEAC=1;MLEAF=0.50	GQ	6935_	BF.	no
					00;MQ=60.00;MQRankSum=	:PG	G_T:1	7	
					0.00;QD=2.73;ReadPosRan	T:P	11,0,1		
					kSum=-	ID:	290:16		
					1.823e+00;SOR=0.911	PL:	935		
						PS			
16			78.	P	AC=2;AF=1.00;AN=2;DP=	GT			
98	T	A	31	A	2;ExcessHet=0.0000;FS=0.0	:A	1/1:0,		
6				S	00;MLEAC=1;MLEAF=0.5	D:	2:2:6:	BF.	no
				S	00;MQ=60.00;QD=31.78;S	DP:	90,6,0	7	
					OR=0.693	GQ			
						:PL			
						GT			
16			78.	P	AC=2;AF=1.00;AN=2;DP=	:A	1/1:0,		
99	C	G	32	A	2;ExcessHet=0.0000;FS=0.0	D:	2:2:6:	BF.	no
5				S	00;MLEAC=1;MLEAF=0.5	DP:	90,6,0	7	
				S	00;MQ=60.00;QD=31.99;S	GQ			
					OR=0.693	:PL			
						GT			
17			29	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:5,		
13	C	T	06	A	QRankSum=0.185;DP=1052	:A	1009:1		
0			9.0	S	;ExcessHet=0.0000;FS=0.00	D:	014:99	BF.	no
			6	S	0;MLEAC=2;MLEAF=1.00;	DP:	:29083	7	
					MQ=60.00;MQRankSum=0.	GQ	,2897,		
					00;QD=28.67;ReadPosRank	:PL	0		
					Sum=0.457;SOR=0.553				

17					AC=2;AF=1.00;AN=2;Base	GT	1/1:1,		
41	C	T	22	P	QRankSum=-3.640e-	:A	5558:5		
0			21	A	01;DP=5792;ExcessHet=0.0	D:	562:99	BF.	yes
			19.	S	000;FS=0.000;MLEAC=2;	DP:	:22213	7	
			1	S	MLEAF=1.00;MQ=60.00;M	GQ	3,1671		
					QRankSum=0.793;QD=28.5	:PL	8,0		
					3;ReadPosRankSum=1.64;S				
					OR=0.441				
17						GT			
66	T	C	35.	P	AC=2;AF=1.00;AN=2;DP=	:A	1 1:0,1		
1			48	A	1;ExcessHet=0.0000;FS=0.0	D:	:1:3:1		
				S	00;MLEAC=1;MLEAF=0.5	DP:	1:1765	BF.	no
				S	00;MQ=60.00;QD=25.40;S	GQ	8_G_	7	
					OR=1.609	:PG	GAA:		
						T:P	45,3,0:		
						ID:	17658		
						PL:			
						PS			
17					AC=2;AF=1.00;AN=2;Base	GT	1/1:1,		
74	C	T	15	P	QRankSum=-	:A	577:58		
6			46	A	2.651e+00;DP=592;Excess	D:	0:99:1	BF.	yes
			9.0	S	Het=0.0000;FS=0.000;MLE	DP:	5483,1	7	
			6	S	AC=2;MLEAF=1.00;MQ=6	GQ	691,0		
					0.00;MQRankSum=0.00;QD	:PL			
					=26.76;ReadPosRankSum=0				
					.929;SOR=0.318				
17						GT			
88	A	T	31.	P	AC=2;AF=1.00;AN=2;DP=	:A	1 1:0,1		
0			63	A	2;ExcessHet=0.0000;FS=0.0	D:	:2:3:1		
				S	00;MLEAC=1;MLEAF=0.5	DP:	1:1788	BF.	no
				S	00;MQ=60.00;QD=31.63;S	GQ	0_A_*	7	
					OR=2.303	:PG	:45,3,0		
						T:P	:17880		
						ID:			
						PL:			
						PS			
18						GT			
16	G	A	14	P	AC=2;AF=1.00;AN=2;DP=	:A	1 1:0,3		
0			28	A	330;ExcessHet=0.0000;FS=	D:	28:328		
			8.0	S	0.000;MLEAC=2;MLEAF=	DP:	:99:1 1	BF.	no
			6	S	1.00;MQ=60.00;QD=27.24;	GQ	:18160	7	
					SOR=0.921	:PG	_G_A:		
						T:P	14302,		
						ID:	987,0:		
						PL:	18160		
						PS			

18 16 3	A G	21 49 34. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=0.586;DP=5681 ;ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=27.23;ReadPosRank Sum=1.50;SOR=0.955	GT :A D: DP: GQ :PL	1/1:2, 5482:5 484:99 :21494 8,1640 9,0	BF. 7	yes
18 24 9	T G	34. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=-7.400e- 01;DP=17;ExcessHet=0.000 0;FS=0.000;MLEAC=1;ML EAF=0.500;MQ=60.00;MQ RankSum=0.00;QD=2.16;R eadPosRankSum=- 1.209e+00;SOR=0.307	GT :A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:14, 2:16:4 2:0 1:1 8249_ T_G:4 2,0,58 2:1824 9	BF. 7	no
18 25 0	A T	34. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=-7.400e- 01;DP=16;ExcessHet=0.000 0;FS=0.000;MLEAC=1;ML EAF=0.500;MQ=60.00;MQ RankSum=0.00;QD=2.16;R eadPosRankSum=- 1.865e+00;SOR=0.307	:A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:14, 2:16:4 2:0 1:1 8249_ T_G:4 2,0,58 2:1824 9	BF. 7	no
18 31 1	T C	94. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=11;E xcessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=8.60;ReadPosRankS um=-2.029e+00;SOR=1.179	:A D: DP: GQ :PG T:P ID: PL: PS GT	0 1:8,3 :11:99 :0 1:18 311_T _C:10 2,0,32 7:1831 1	BF. 7	no
18 31 3	G C	94. 64	P A S S	AC=1;AF=0.500;AN=2;Bas eQRankSum=0.00;DP=11;E xcessHet=0.0000;FS=0.000; MLEAC=1;MLEAF=0.500; MQ=60.00;MQRankSum=0. 00;QD=8.60;ReadPosRankS um=-1.922e+00;SOR=1.179	GT :A D: DP: GQ :PG T:P ID:	0 1:8,3 :11:99 :0 1:18 311_T _C:10 2,0,32 7:1831 1	BF. 7	no

18				P	AC=1;AF=0.500;AN=2;BaseQRankSum=-4.300e-02;DP=55;ExcessHet=0.000	PL: PS GT :A 0 1:45, D: 7:52:9 DP: 9:0 1:1			
66	G	C	15	A	0;FS=1.639;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.90;ReadPosRankSum=-1.225e+00;SOR=0.747	GQ 8668_ :PG G_C:1 T:P 58,0,1 ID: 869:18 PL: 668	BF.	7	no
8			4	S					
18				P	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.400e-02;DP=55;ExcessHet=0.000	PL: PS GT :A 0 1:45, D: 7:52:9 DP: 9:0 1:1			
66	T	A	15	A	0;FS=1.639;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.90;ReadPosRankSum=-1.451e+00;SOR=0.747	GQ 8668_ :PG G_C:1 T:P 58,0,1 ID: 869:18 PL: 668	BF.	7	no
9			4	S					
18				P	AC=1;AF=0.500;AN=2;BaseQRankSum=-6.400e-02;DP=52;ExcessHet=0.000	PL: PS GT :A 0 1:45, D: 7:52:9 DP: 9:0 1:1			
67	G	C	15	A	0;FS=1.639;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.90;ReadPosRankSum=-1.775e+00;SOR=0.747	GQ 8668_ :PG G_C:1 T:P 58,0,1 ID: 868:18 PL: 668	BF.	7	no
0			4	S					
18				P	AC=1;AF=0.500;AN=2;BaseQRankSum=1.32;DP=196;ExcessHet=0.0000;FS=2.197;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.05;ReadPosRankSum=-1.830e-01;SOR=0.672	GT :A 0/1:13 D: 5,44:1 DP: 79:99: GQ 732,0, :PL 3241	BF.	7	no
69	T	C	72	A					
6			4	S					
19				P	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=22;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.	GT :A 0/1:16 D: ,6:22: DP: 82:82, GQ 0,329 :PL	BF.	7	no
12	A	G	74.	A					
4			64	S					

				00;QD=3.39;ReadPosRankSum=-4.240e-01;SOR=0.693					
19					GT				
13				AC=1;AF=0.500;AN=2;BaseQRankSum=-8.100e-	:A	0 1:13,			
2	G	T	95.64	01;DP=17;ExcessHet=0.000	D:	4:17:9			
				0;FS=2.197;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.63;ReadPosRankSum=1.09;SOR=1.402	DP:	9:0 1:1			
					GQ	9132_	BF.		
					:PG	G_T:1	7	no	
					T:P	03,0,4			
					ID:	62:191			
					PL:	32			
					PS				
					GT				
19				AC=1;AF=0.500;AN=2;BaseQRankSum=-	:A	0 1:13,			
13				1.423e+00;DP=17;ExcessHet=0.0000;FS=2.197;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.63;ReadPosRankSum=0.789;SOR=1.402	D:	4:17:9			
7	A	C	95.64		DP:	9:0 1:1			
					GQ	9132_	BF.		
					:PG	G_T:1	7	no	
					T:P	03,0,4			
					ID:	62:191			
					PL:	32			
					PS				
					GT				
19				AC=1;AF=0.500;AN=2;BaseQRankSum=-4.520e-	:A	0 1:11,			
67				01;DP=17;ExcessHet=0.000	D:	4:16:9			
9	G	T	127.61	0;FS=5.119;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=8.51;ReadPosRankSum=-3.460e-01;SOR=1.944	DP:	9:0 1:1			
					GQ	9679_	BF.		
					:PG	G_*:1	7	no	
					T:P	35,0,4			
					ID:	50:196			
					PL:	79			
					PS				
					GT				
19				AC=1;AF=0.500;AN=2;BaseQRankSum=0.110;DP=16;ExcessHet=0.0000;FS=5.119;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=8.51;ReadPosRankSum=-2.900e-01;SOR=1.944	:A	0 1:11,			
68					D:	4:16:9			
0	T	A	127.58		DP:	9:0 1:1			
					GQ	9679_	BF.		
					:PG	G_*:1	7	no	
					T:P	35,0,4			
					ID:	50:196			
					PL:	79			
					PS				
					GT				
19				AC=2;AF=1.00;AN=2;DP=24;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.	GT	1/1:0,			
85					:A	22:22:	BF.		
9	C	T	2.06		D:	66:626	7	no	
					DP:	,66,0			

19	C T	23 03 11. 1	P A S S	00;MQ=60.00;QD=27.82;S OR=0.874 AC=2;AF=1.00;AN=2;DP= 6010;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=28.53 ;SOR=0.842	GQ :PL GT 1/1:0, :A 5897:5 D: 897:99 BF. DP: :23032 7 yes GQ 5,1772 :PL 6,0
20	A G	21 99 06. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=3.11;DP=5956; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=33.47;ReadPosRank Sum=1.08;SOR=0.677	GT 1/1:1, :A 5643:5 D: 713:99 BF. DP: :21992 7 yes GQ 0,1692 :PL 4,0
20	C T	14 20 72. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=-4.110e- 01;DP=4236;ExcessHet=0.0 000;FS=0.000;MLEAC=2; MLEAF=1.00;MQ=60.00;M QRankSum=0.031;QD=34.1 4;ReadPosRankSum=1.31;S OR=0.660	GT 1/1:3, :A 4159:4 D: 162:99 BF. DP: :14208 7 yes GQ 6,1241 :PL 9,0
21	C T	64 8.0 6	P A S S	AC=2;AF=1.00;AN=2;DP= 24;ExcessHet=0.0000;FS=0. 000;MLEAC=2;MLEAF=1. 00;MQ=60.00;QD=27.00;S OR=0.859	GT :A 1/1:0, D: 24:24: BF. DP: 72:662 7 no GQ ,72,0 :PL
21	A G	12 92 86. 1	P A S S	AC=2;AF=1.00;AN=2;Base QRankSum=1.88;DP=3840; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=32.91;ReadPosRank Sum=1.73;SOR=0.339	GT 1/1:5, :A 3683:3 D: 688:99 BF. DP: :12930 7 yes GQ 0,1093 :PL 6,0
21	C T	19 57 47. 1	P A S S	AC=2;AF=1.00;AN=2;DP= 4637;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=32.91 ;SOR=0.792	GT 1/1:0, :A 4550:4 D: 557:99 BF. DP: :19576 7 yes GQ 1,1369 :PL 5,0
21	G A	22 75 38. 1	P A S S	AC=2;AF=1.00;AN=2;DP= 6008;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;MQRankS	GT 1/1:1, :A 5814:5 BF. D: 817:99 7 yes DP: :22755

22					um=-3.000e-02;QD=33.27;SOR=0.555	GQ 2,1748 :PL 5,0 GT 0 1:13, :A 2:15:4 D: 5:0 1:2 DP: 2176_			
18	G C	37.64	P A S S		AC=1;AF=0.500;AN=2;BaseQRankSum=-1.960e-01;DP=15;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.51;ReadPosRankSum=-2.133e+00;SOR=0.569	GQ C_CA :PG TTAC T:P AGCT ID: A:45,0 PL: ,540:2 PS 2176 GT :A 1 1:0,2 D: 2:22:6 DP: 6:1 1:2 GQ 2199_ :PG G_C:9 T:P 90,66, ID: 0:2219 PL: 9 PS	BF. 7	no	
19	G C	6.06	P A S S		AC=2;AF=1.00;AN=2;DP=24;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.56;SOR=1.085	GQ 2199_ :PG G_C:9 T:P 90,66, ID: 0:2219 PL: 9 PS	BF. 7	no	
22	T G	21.85	P A S S		AC=2;AF=1.00;AN=2;BaseQRankSum=3.98;DP=6018;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.270;QD=31.26;ReadPosRankSum=0.691;SOR=0.490	GT 1/1:10 :A ,5756: D: 5766:9 DP: 9:2186 GQ 10,170 :PL 84,0	BF. 7	yes	
22	C T	13.88	P A S S		AC=1;AF=0.500;AN=2;BaseQRankSum=1.08;DP=248;ExcessHet=0.0000;FS=0.504;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.81;ReadPosRankSum=3.80;SOR=0.622	GT 0/1:16 :A 0,79:2 D: 39:99: DP: 1396,0 GQ ,3510 :PL	BF. 7	no	
22	C A	53.64	P A S S		AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=21;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.55;ReadPosRankSum=-8.230e-01;SOR=1.022	GT 0/1:16 :A ,5:21: D: 61:61, DP: 0,373 GQ :PL	BF. 7	no	
22	G A	21.23	P A		AC=2;AF=1.00;AN=2;BaseQRankSum=3.47;DP=4966;ExcessHet=0.0000;FS=0.00	GT 1/1:16 :A ,4844: D: 4860:9	BF. 7	yes	

			73.	S	0;MLEAC=2;MLEAF=1.00;	DP: 9:2123			
			1	S	MQ=60.00;MQRankSum=-	GQ 87,139			
					1.240e-	:PL 87,0			
					01;QD=27.76;ReadPosRank				
					Sum=2.14;SOR=0.419				
					AC=2;AF=1.00;AN=2;Base	GT 1/1:4,			
22			19	P	QRankSum=0.095;DP=4639	:A 4570:4			
59	G	C	62	A	;ExcessHet=0.0000;FS=0.00	D: 574:99	BF.		
9			62.	S	0;MLEAC=2;MLEAF=1.00;	:19627	7	yes	
			1	S	MQ=60.00;MQRankSum=0.	GQ 6,1361			
					171;QD=31.26;ReadPosRan	:PL 0,0			
					kSum=0.920;SOR=0.513				
					AC=1;AF=0.500;AN=2;Bas				
					eQRankSum=-6.150e-	GT			
22			10	P	01;DP=13;ExcessHet=0.000	:A 0/1:7,			
66	T	C	1.6	A	0;FS=0.000;MLEAC=1;ML	D: 6:13:9	BF.		
7			4	S	EAF=0.500;MQ=60.00;MQ	DP: 9:109,	7	no	
				S	RankSum=0.00;QD=7.82;R	GQ 0,151			
					eadPosRankSum=1.59;SOR	:PL			
					=0.495				
					AC=2;AF=1.00;AN=2;DP=	GT 1/1:0,			
22			16	P	3797;ExcessHet=0.0000;FS	:A 3665:3			
67	C	T	34	A	=0.000;MLEAC=2;MLEAF	D: 665:99	BF.		
4			06.	S	=1.00;MQ=60.00;QD=26.08	DP: :16342	7	yes	
			1	S	;SOR=0.814	GQ 0,1103			
						:PL 9,0			
					AC=2;AF=1.00;AN=2;Base	GT 1/1:34			
					QRankSum=-	:A ,3398:			
22			13	P	1.908e+00;DP=3538;Excess	D: 3432:9	BF.		
67	T	C	11	A	Het=0.0000;FS=3.329;MLE	DP: 9:1311	7	yes	
9			06.	S	AC=2;MLEAF=1.00;MQ=6	GQ 20,897			
			1	S	0.00;MQRankSum=0.00;QD	:PL 7,0			
					=33.85;ReadPosRankSum=0				
					.305;SOR=0.698				
					AC=2;AF=1.00;AN=2;Base	GT 1/1:70			
					QRankSum=0.114;DP=3375	:A ,3202:			
22			12	P	;ExcessHet=0.0000;FS=0.00	D: 3272:9	BF.		
68	C	T	31	A	0;MLEAC=2;MLEAF=1.00;	DP: 9:1232	7	yes	
6			99.	S	MQ=60.00;MQRankSum=0.	GQ 13,691			
			1	S	00;QD=27.08;ReadPosRank	:PL 3,0			
					Sum=1.64;SOR=0.575				
					AC=2;AF=1.00;AN=2;Base	GT 1/1:31			
					QRankSum=-5.330e-	:A ,3133:	BF.		
22	A	G	12	P	01;DP=3310;ExcessHet=0.0	D: 3226:9	7	yes	
68			04	A	000;FS=0.000;MLEAC=2;	DP: 9:1204			
8			37.	S	MLEAF=1.00;MQ=60.00;M				
			1	S					

					QRankSum=0.00;QD=25.42 ;ReadPosRankSum=1.90;SOR=0.878	GQ :PL	51,837 7,0		
22 77 5	G A	13 99 48. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=0.887;DP=3287 ;ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=29.48;ReadPosRank Sum=2.12;SOR=0.061	GT :A D: DP: GQ :PG _A:13 T:P ID: PL: PS	1 1:3,3 172:31 75:99: 1 1:22 775_G 9962,9 482,0: 22775	BF. 7	yes
22 78 6	A C	16 72 74. 1	P A S S		AC=2;AF=1.00;AN=2;DP= 3775;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=29.48 ;SOR=0.726	GT :A D: DP: GQ :PL	1/1:0, 3644:3 645:99 :16728 8,1134 5,0	BF. 7	yes
22 81 3	G T	16 62 45. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=2.96;DP=4042; ExcessHet=0.0000;FS=0.00 0;MLEAC=2;MLEAF=1.00; MQ=60.00;MQRankSum=0. 00;QD=27.08;ReadPosRank Sum=0.700;SOR=0.138	GT :A D: DP: GQ :PL	1/1:3, 3959:3 962:99 :16625 9,1185 1,0	BF. 7	yes
22 88 2	T G	19 82 34. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=-8.110e- 01;DP=4653;ExcessHet=0.0 000;FS=0.000;MLEAC=2; MLEAF=1.00;MQ=60.00;M QRankSum=0.00;QD=33.63 ;ReadPosRankSum=1.21;SO R=0.275	GT :A D: DP: GQ :PL	1/1:1, 4462:4 465:99 :19824 8,1365 1,0	BF. 7	yes
22 91 7	T G	22 75 79. 1	P A S S		AC=2;AF=1.00;AN=2;DP= 5113;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=30.55 ;SOR=0.765	GT :A D: DP: GQ :PG _G:22 T:P ID: PL: PS	1 1:0,5 104:51 04:99: 1 1:22 917_T _G:22 7593,1 5363,0 :22917	BF. 7	yes

22 99 2	G A	22 53 05. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5085;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.42;SOR=1.024	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,5 025:50 25:99: 1 1:22 917_T _G:22 5319,1 5125,0 :22917	BF. 7	yes
22 99 5	C A	22 53 25. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5017;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.65;SOR=1.013	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,5 017:50 17:99: 1 1:22 917_T _G:22 5339,1 5101,0 :22917	BF. 7	yes
23 01 3	A C	19 61 42. 1	P A S S	AC=2;AF=1.00;AN=2;DP=4360;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.48;SOR=0.996	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,4 360:43 60:99: 1 1:22 917_T _G:19 6156,1 3124,0 :22917	BF. 7	yes
23 01 8	T G	18 69 04. 1	P A S S	AC=2;AF=1.00;AN=2;DP=4163;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.56;SOR=1.007	GT :A D: DP: GQ :PG T:P ID: PL: PS	1 1:0,4 155:41 55:99: 1 1:22 917_T _G:18 6918,1 2507,0 :22917	BF. 7	yes
23 05 5	A G	13 68 43. 1	P A S S	AC=2;AF=1.00;AN=2;DP=3044;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=34.30;SOR=0.763	GT :A D: DP: GQ :PL	1/1:0, 3043:3 043:99 :13685 7,9160 ,0	BF. 7	yes

23 06 3	A T	13 72 15. 1	P A S S	AC=2;AF=1.00;AN=2;DP=3059;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.00;SOR=0.829	GT :A D: DP: GQ :PL	1/1:0, 3059:3 059:99 :13722 9,9208 ,0	BF. 7	yes
23 07 5	T C	13 73 67. 1	P A S S	AC=2;AF=1.00;AN=2;DP=3175;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.82;SOR=0.852	GT :A D: DP: GQ :PL	1/1:0, 3110:3 110:99 :13738 1,9360 ,0	BF. 7	yes
23 19 1	C T	12 58 6.0 6	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=0.946;DP=452;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=28.74;ReadPosRankSum=2.08;SOR=0.521	GT :A D: DP: GQ :PL	1/1:3, 435:43 8:99:1 2600,1 230,0	BF. 7	yes
23 40 3	A G	23 89 39. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.388e+00;DP=6196;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-1.000e-03;QD=35.92;ReadPosRankSum=-2.370e-01;SOR=0.474	GT :A D: DP: GQ :PL	1/1:3, 5904:5 915:99 :23895 3,1784 6,0	BF. 7	yes
23 43 9	C T	55 91. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=1.71;DP=461;ExcessHet=0.0000;FS=1.746;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=12.77;ReadPosRankSum=-8.730e-01;SOR=0.777	GT :A D: DP: GQ :PL	0/1:19 4,244: 438:99 :5599, 0,4075	BF. 7	yes
23 52 5	C T	24 66 20. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=3.00;DP=6018;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-1.000e-03;QD=29.63;ReadPosRankSum=-1.310e+00;SOR=0.461	GT :A D: DP: GQ :PL	1/1:1, 5914:5 915:99 :24663 4,1779 1,0	BF. 7	yes

23					AC=2;AF=1.00;AN=2;Base	GT	1/1:19			
59	T	G	21	P	1.302e+00;DP=4795;Excess	:A	,4759:			
9			15	A	Het=0.0000;FS=0.000;MLE	D:	4778:9	BF.		yes
			23.	S	AC=2;MLEAF=1.00;MQ=6	DP:	9:2115	7		
			1	S	0.00;MQRankSum=0.104;Q	GQ	37,135			
					D=28.76;ReadPosRankSum	:PL	26,0			
					=3.50;SOR=0.835					
23			20	P	AC=2;AF=1.00;AN=2;DP=	GT	1/1:4,			
60	C	A	25	A	4628;ExcessHet=0.0000;FS	:A	4509:4			
4			59.	S	=0.000;MLEAC=2;MLEAF	D:	517:99	BF.		yes
			1	S	=1.00;MQ=60.00;MQRankS	DP:	:20257	7		
					um=0.00;QD=27.00;SOR=0	GQ	3,1356			
					.945	:PL	1,0			
23			18	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:1,			
85	C	A	01	A	QRankSum=-6.060e-	:A	4856:4			
4			09.	S	01;DP=5020;ExcessHet=0.0	D:	857:99	BF.		yes
			1	S	000;FS=0.000;MLEAC=2;	DP:	:18012	7		
					MLEAF=1.00;MQ=60.00;M	GQ	3,1456			
					QRankSum=0.00;QD=29.94	:PL	8,0			
					;ReadPosRankSum=-					
					1.539e+00;SOR=0.342					
23			18	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:4,			
94	G	T	53	A	QRankSum=2.49;DP=5028;	:A	4892:4			
8			16.	S	ExcessHet=0.0000;FS=0.00	D:	898:99	BF.		yes
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	:18533	7		
					MQ=60.00;MQRankSum=0.	GQ	0,1461			
					260;QD=31.54;ReadPosRan	:PL	0,0			
					kSum=3.32;SOR=0.476					
24			40	P	AC=1;AF=0.500;AN=2;Bas	GT	0/1:44			
10	C	T	6.6	A	eQRankSum=0.242;DP=68;	:A	,22:66			
6			4	S	ExcessHet=0.0000;FS=0.00	D:	:99:41	BF.		yes
				S	0;MLEAC=1;MLEAF=0.50	DP:	4,0,10	7		
					0;MQ=60.00;MQRankSum=	GQ	09			
					0.00;QD=6.16;ReadPosRan	:PL				
					kSum=0.307;SOR=0.770					
24			35.	P	AC=2;AF=1.00;AN=2;DP=	GT	1 1:0,1			
15	C	G	48	A	1;ExcessHet=0.0000;FS=0.0	:A	:1:3 1			
0				S	00;MLEAC=1;MLEAF=0.5	D:	1:2415			
				S	00;MQ=60.00;QD=28.93;S	DP:	GQ	1:2415	BF.	no
					OR=1.609	:PG	0_C_	7		
						T:P	G:45,3			
						ID:	,0:241			
						PL:	50			
						PS				

24 15 1	T A	35. 48	P A S S	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;QD=28.80;SOR=1.609	GT :A D: 1 1:0,1 DP: :1:3:1 GQ 1:2415 :PG 0_C_ T:P G:45,3 ID: ,0:241 PL: 50 PS GT	BF. 7	no
24 38 1	C T	37 1.0 6	P A S S	AC=2;AF=1.00;AN=2;DP=13;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=30.92;SOR=1.022	GT :A 1/1:0, D: 12:12: DP: 36:385 GQ ,36,0 :PL	BF. 7	no
24 42 4	A T	24 78 51. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.301e+00;DP=6018;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=31.54;ReadPosRankSum=-2.670e-01;SOR=0.033	GT 1/1:12 :A ,5741: D: 5766:9 DP: 9:2478 GQ 65,170 :PL 76,0	BF. 7	yes
24 46 9	T A	24 00 09. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5834;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.86;SOR=0.860	GT 1/1:0, :A 5728:5 D: 752:99 DP: :24002 GQ 3,1720 :PL 9,0 GT	BF. 7	yes
24 72 0	C T	52. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.530e-01;DP=10;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.26;ReadPosRankSum=-1.593e+00;SOR=0.693	:A 0 1:8,2 D: :10:60 DP: :0 1:24 GQ 720_C :PG _T:60, T:P 0,330: ID: 24720 PL: PS GT	BF. 7	no
24 73 1	C T	35. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=1.29;DP=16;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.	:A 0/1:13 D: ,3:16: DP: 43:43, GQ 0,291 :PL	BF. 7	no

25000	C	T	1879.92.1	P A S S	00;QD=2.23;ReadPosRankSum=0.405;SOR=1.002 AC=2;AF=1.00;AN=2;BaseQRankSum=0.936;DP=5288;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=28.76;ReadPosRankSum=0.037;SOR=0.437	GT :A D: DP: GQ :PL	1/1:1, 5136:5 137:99 :18800 6,1539 1,0	BF. 7	yes
25290	G	T	1827.37.1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=3.81;DP=5583;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-3.800e-02;QD=33.91;ReadPosRankSum=6.12;SOR=0.819	GT :A D: DP: GQ :PL	1/1:29 8,5091 :5392: 99:182 751,54 30,0	BF. 7	yes
25333	T	A	1833.86.1	P A S S	AC=2;AF=1.00;AN=2;DP=4548;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-2.880e-01;QD=31.54;SOR=0.430	GT :A D: DP: GQ :PG _T:P ID: PL: PS	1 1:1,4 487:44 88:99: 1 1:25 290_G _T:18 3400,1 3447,0 :25290	BF. 7	no
25584	C	T	2337.19.1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-6.410e-01;DP=6477;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-1.000e-03;QD=29.41;ReadPosRankSum=0.811;SOR=0.354	GT :A D: DP: GQ :PL	1/1:1, 5925:5 951:99 :23373 3,1788 6,0	BF. 7	yes
26060	C	T	2275.49.1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.68;DP=6003;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.382;QD=31.11;ReadPosRankSum=1.66;SOR=0.461	GT :A D: DP: GQ :PL	1/1:5, 5743:5 754:99 :22756 3,1703 7,0	BF. 7	yes
26270	C	T	2375.07.1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.85;DP=6199;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;	GT :A D: DP:	1/1:2, 4378:4 410:99 :23752	BF. 7	yes

26					MQ=60.00;MQRankSum=-1.660e-01;QD=34.66;ReadPosRankSum=-3.670e-01;SOR=0.231	GQ	1,1791			
52	G	A	24	P	AC=2;AF=1.00;AN=2;BaseQRankSum=0.413;DP=5928	GT	1/1:3,			
9			78	A	;ExcessHet=0.0000;FS=0.00	:A	5771:5			
			02.	S	0;MLEAC=2;MLEAF=1.00;	D:	776:99	BF.		yes
			1	S	MQ=60.00;MQRankSum=-4.970e-01;QD=29.40;ReadPosRankSum=1.21;SOR=0.110	DP:	:24781	7		
					AC=2;AF=1.00;AN=2;BaseQRankSum=0.413;DP=5928	GQ	6,1727			
					;ExcessHet=0.0000;FS=0.00	:PL	0,0			
26			25	P	AC=2;AF=1.00;AN=2;DP=5987;ExcessHet=0.0000;FS	GT	1/1:2,			
57	C	G	33	A	=0.000;MLEAC=2;MLEAF	:A	5906:5			
7			42.	S	=1.00;MQ=60.00;MQRankS	D:	908:99	BF.		yes
			1	S	um=-6.360e-01;QD=36.76;SOR=0.187	DP:	:25335	7		
					AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.0	GQ	6,1773			
26			35.	P	00;MLEAC=1;MLEAF=0.5	:PL	3,0			
62	G	A	48	A	00;MQ=60.00;QD=28.07;S	GT				
0				S	OR=1.609	:A	1 1:0,1			
						D:	:1:3:1			
						DP:	1:2661			
						GQ	9_T_T	BF.		no
						:PG	AATA	7		
						T:P	A:45,3			
						ID:	,0:266			
						PL:	19			
						PS				
						GT				
						:A	1 1:0,1			
						D:	:1:3:1			
26			35.	P	AC=2;AF=1.00;AN=2;DP=1;ExcessHet=0.0000;FS=0.0	DP:	1:2661			
62	C	A	48	A	00;MLEAC=1;MLEAF=0.5	GQ	9_T_T	BF.		no
2				S	00;MQ=60.00;QD=29.04;S	:PG	AATA	7		
				S	OR=1.609	T:P	A:45,3			
						ID:	,0:266			
						PL:	19			
						PS				
						GT				
						:A	1/1:1,			
26			22	P	QRankSum=-4.450e-01;DP=5950;ExcessHet=0.0	:A	5810:5			
70	G	A	64	A	000;FS=0.000;MLEAC=2;	D:	813:99	BF.		yes
9			13.	S	MLEAF=1.00;MQ=60.00;M	DP:	:22642	7		
			1	S	QRankSum=-2.500e-	GQ	7,1740			
						:PL	9,0			

26	C	T	93	P	02;QD=36.76;ReadPosRank Sum=1.50;SOR=0.615	GT	0/1:31			
77			28.	A	AC=1;AF=0.500;AN=2;Bas	:A	1,413:	BF.	no	
6			64	S	eQRankSum=0.419;DP=735	D:	724:99	7		
				S	;ExcessHet=0.0000;FS=1.11	DP:	:9336,			
				S	0;MQ=60.00;MQRankSum=	GQ	0,6321			
				S	0.00;QD=12.88;ReadPosRa	:PL				
				S	nkSum=-9.680e-					
				S	01;SOR=0.597					
26	T	C	11	P	AC=2;AF=1.00;AN=2;Base	GT	1/1:33			
89			95	A	QRankSum=2.91;DP=4205;	:A	1,3725			
7			87.	S	ExcessHet=0.0000;FS=0.00	D:	:4056:	BF.	no	
			1	S	0;MLEAC=2;MLEAF=1.00;	DP:	99:119	7		
				S	MQ=60.00;MQRankSum=0.	GQ	601,10			
				S	00;QD=29.48;ReadPosRank	:PL	53,0			
				S	Sum=1.28;SOR=0.644					
				S	AC=2;AF=1.00;AN=2;Base	GT	1/1:24			
27	A	G	21	P	QRankSum=1.54;DP=6130;	:A	3,5534			
03			11	A	ExcessHet=0.0000;FS=0.00	D:	:5820:	BF.	yes	
8			00.	S	0;MLEAC=2;MLEAF=1.00;	DP:	99:211	7		
			1	S	MQ=60.00;MQRankSum=-	GQ	114,75			
				S	5.300e-	:PL	60,0			
				S	02;QD=21.53;ReadPosRank					
				S	Sum=7.27;SOR=0.562					
				S	AC=1;AF=0.500;AN=2;Bas	GT	0 1:9,4			
27	C	T	93.	P	eQRankSum=0.396;DP=13;	:A	:13:99			
33			64	A	ExcessHet=0.0000;FS=0.00	D:	:0 1:27			
5				S	0;MLEAC=1;MLEAF=0.50	DP:	GQ	335_C	BF.	no
				S	0;MQ=60.00;MQRankSum=	:PG	_T:10	7		
				S	0.00;QD=7.20;ReadPosRan	T:P	1,0,29			
				S	kSum=0.111;SOR=0.527	ID:	0:2733			
				S		PL:	5			
				S		PS				
				S		GT				
				S		:A	0 1:6,2			
27	A	T	58.	P	AC=1;AF=0.500;AN=2;Bas	D:	:8:66:			
34			64	A	eQRankSum=0.00;DP=8;Ex	DP:	0 1:27			
4				S	cessHet=0.0000;FS=0.000;	GQ	335_C	BF.	no	
				S	MLEAC=1;MLEAF=0.500;	:PG	_T:66,	7		
				S	MQ=60.00;MQRankSum=0.	T:P	0,246:			
				S	00;QD=7.33;ReadPosRankS	ID:	27335			
				S	um=-6.190e-01;SOR=0.693	PL:				
				S		PS				

27 34 5	A T	58. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=7.33;ReadPosRankSum=-6.190e-01;SOR=0.693	GT :A D: 0 1:6,2 :8:66: DP: 0 1:27 GQ 335_C :PG _T:66, T:P 0,246: ID: 27335 PL: PS GT	BF. 7	no
27 35 4	A G	52. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=0.253;DP=10;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=5.26;ReadPosRankSum=-2.287e+00;SOR=0.693	:A D: 0 1:8,2 :10:60 DP: :0 1:27 GQ 335_C :PG _T:60, T:P 0,249: ID: 27335 PL: PS	BF. 7	no
27 43 8	T C	80 12. 06	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=1.09;DP=308;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=26.89;ReadPosRankSum=-2.600e-02;SOR=0.721	GT :A 1/1:6, 292:29 D: 8:99:8 DP: 026,74 GQ 4,0 :PL	BF. 7	no
27 46 1	G A	67. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-1.242e+00;DP=8;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=8.45;ReadPosRankSum=0.00;SOR=0.693	GT :A 0/1:4, D: 4:8:75 DP: :75,0,1 GQ 09 :PL	BF. 7	no
27 53 2	C T	20 97 15. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-5.430e-01;DP=5830;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.055;QD=34.87;ReadPosRankSum=1.98;SOR=0.628	GT 1/1:19 :A 8,5436 D: :5634: DP: 99:209 GQ 729,92 :PL 93,0	BF. 7	yes

27 63 4	T	A	61. 64	P A S S	AC=1;AF=0.500;AN=2;BaseQRankSum=-2.720e-01;DP=15;ExcessHet=0.0000;FS=2.796;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=4.11;ReadPosRankSum=-6.280e-01;SOR=0.939	GT :A 0 1:12, D: 3:15:6 DP: 9:0 1:2 GQ 7634_ :PG T_A:6 T:P 9,0,41 ID: 4:2763 PL: 4 PS GT 1/1:0, :A 4387:4 D: 402:99 DP: :24519 GQ 5,1791 :PL 8,0	BF. 7	no
27 80 7	C	T	24 51 81. 1	P A S S	AC=2;AF=1.00;AN=2;DP=6083;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=25.57;SOR=0.764	GT 1/1:3, :A 5824:5 D: 827:99 DP: :24027 GQ 5,1743 :PL 5,0	BF. 7	yes
27 88 9	C	T	24 02 61. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=2.41;DP=5971;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-5.010e-01;QD=33.11;ReadPosRankSum=2.69;SOR=0.592	GT 1/1:1, :A 5417:5 D: 423:99 DP: :20773 GQ 2,1626 :PL 1,0	BF. 7	no
28 09 3	C	T	20 77 18. 1	P A S S	AC=2;AF=1.00;AN=2;BaseQRankSum=-1.340e+00;DP=5628;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=0.00;QD=27.86;ReadPosRankSum=1.63;SOR=0.453	GT 1 1:0,5 :A 904:59 D: 04:99: DP: 1 1:28 GQ 271_A :PG _T:25 T:P 4294,1 ID: 7762,0 PL: :28271 PS GT 1/1:2, :A 4789:4 D: 791:99 DP: :25989	BF. 7	yes
28 31 1	C	T	25 98 85. 1	P A S S	AC=2;AF=1.00;AN=2;DP=5867;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=34.17;SOR=0.794			

					=1.00;MQ=60.00;QD=28.60 ;SOR=0.969	GQ 9,1746 :PL 8,0			
28 33 0	A G	24 98 89. 1	P A S S		AC=2;AF=1.00;AN=2;DP= 5589;ExcessHet=0.0000;FS =0.000;MLEAC=2;MLEAF =1.00;MQ=60.00;QD=25.57 ;SOR=0.933	GT 1/1:0, :A 5563:5 D: 578:99 DP: :24990 GQ 3,1674 :PL 6,0	BF. 7	yes	
28 50 9	G T	10 98 8.0 6	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=-8.050e- 01;DP=442;ExcessHet=0.00 00;FS=0.000;MLEAC=2;M LEAF=1.00;MQ=60.00;MQ RankSum=0.00;QD=26.87; ReadPosRankSum=- 2.384e+00;SOR=0.368	GT 1/1:3, :A 406:40 D: 9:99:1 DP: 1002,1 GQ 135,0 :PL	BF. 7	no	
28 69 0	G C	33 00. 64	P A S S		AC=1;AF=0.500;AN=2;Bas eQRankSum=-4.700e- 02;DP=355;ExcessHet=0.00 00;FS=1.266;MLEAC=1;M LEAF=0.500;MQ=60.00;M QRankSum=0.00;QD=9.48; ReadPosRankSum=0.050;S OR=0.749	GT 0/1:19 :A 3,155: D: 348:99 DP: :3308, GQ 0,4414 :PL	BF. 7	no	
28 88 1	G A	22 64 07. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=- 1.509e+00;DP=5213;Excess Het=0.0000;FS=0.000;MLE AC=2;MLEAF=1.00;MQ=6 0.00;MQRankSum=0.00;QD =33.11;ReadPosRankSum=- 1.504e+00;SOR=0.074	GT 1/1:21 :A ,5048: D: 5078:9 DP: 9:2264 GQ 21,144 :PL 60,0	BF. 7	yes	
28 88 2	G A	20 23 24. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=-6.430e- 01;DP=4711;ExcessHet=0.0 000;FS=0.000;MLEAC=2; MLEAF=1.00;MQ=60.00;M QRankSum=0.00;QD=30.36 ;ReadPosRankSum=1.85;SO R=0.749	GT 1/1:4, :A 3966:3 D: 992:99 DP: :20233 GQ 8,1281 :PL 8,0	BF. 7	yes	
28 88 3	G C	19 57 93. 1	P A S S		AC=2;AF=1.00;AN=2;Base QRankSum=-6.520e- 01;DP=4492;ExcessHet=0.0 000;FS=0.000;MLEAC=2; MLEAF=1.00;MQ=60.00;M QRankSum=0.168;QD=29.5	GT 1/1:2, :A 4379:4 D: 410:99 DP: :19657 GQ 6,1283 :PL 0,0	BF. 7	yes	

29					3;ReadPosRankSum=1.71;SOR=0.169								
09	G	T	19	P	AC=2;AF=1.00;AN=2;BaseQRankSum=-	GT	1/1:7,						
0			29	A	1.073e+00;DP=708;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=6	:A	670:67	BF.	no				
			5.0	S	0.00;MQRankSum=0.00;QD=28.50;ReadPosRankSum=-1.670e+00;SOR=0.728	D:	7:99:1	7					
			6	S	AC=2;AF=1.00;AN=2;BaseQRankSum=3.20;DP=5586;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;MQRankSum=-3.490e-	DP:	9309,1						
					01;QD=31.67;ReadPosRankSum=1.61;SOR=1.269	GQ	806,0						
						:PL							
29			20	P	AC=1;AF=0.500;AN=2;BaseQRankSum=1.08;DP=74;ExcessHet=0.0000;FS=0.000;MLEAC=1;MLEAF=0.500;MQ=60.00;MQRankSum=0.00;QD=2.24;ReadPosRankSum=-2.756e+00;SOR=0.854	GT	1/1:4,						
51	A	C	42	A		:A	5300:5	BF.	yes				
0			13.	S		D:	304:99	7					
			1	S		DP:	:20422						
						GQ	7,1584						
						:PL	7,0						
29			15	P	AC=2;AF=1.00;AN=2;DP=391;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=27.48;SOR=0.981	GT	1/1:0,						
51	C	T	2.6	A		:A	0 1:56,	BF.	no				
8			4	S		D:	12:68:	7					
				S		DP:	99:0 1:						
						GQ	29510						
						:PG	_A_C:						
						T:P	160,0,						
						ID:	1409:2						
						PL:	9510						
						PS							
29			10	P	AC=2;AF=1.00;AN=2;BaseQRankSum=4.79;DP=5364;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=29.53;ReadPosRankSum=0.756;SOR=1.414	GT	1/1:16						
61	C	T	52	A		:A	,5104:	BF.	yes				
4			4.0	S		D:	5120:9	7					
			6	S		DP:	9:1923						
						GQ	70,152						
						:PL	81,0						
29			19	P	AC=2;AF=1.00;AN=2;BaseQRankSum=0.671;DP=196;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;	GT	1/1:2,						
63	C	T	23	A		:A	188:19	BF.	yes				
2			56.	S		D:	0:99:5	7					
			1	S		DP:							
						GQ							
						:PL							
29			52	P	AC=2;AF=1.00;AN=2;BaseQRankSum=0.671;DP=196;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;	GT	1/1:2,						
66	C	T	69.	A		:A	188:19	BF.	yes				
6			06	S		D:	0:99:5	7					
				S		DP:							

					MQ=60.00;MQRankSum=0.00;QD=27.73;ReadPosRankSum=2.34;SOR=0.901	GQ :PL	283,52 1,0		
29		16	P		AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.00;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=31.31;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL:	1 1:0,4 :4:12: 1 1:29 845_T _G:18 0,12,0: 29845	BF. 7	no
84	T G	6.1	A						
5		4	S						
29		16	P		AC=2;AF=1.00;AN=2;DP=4;ExcessHet=0.0000;FS=0.00;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=31.45;SOR=0.693	GT :A D: DP: GQ :PG T:P ID: PL:	1 1:0,4 :4:12: 1 1:29 845_T _G:18 0,12,0: 29845	BF. 7	no
84	T A	6.1	A						
6		4	S						
29		10	P		AC=2;AF=1.00;AN=2;DP=41;ExcessHet=0.0000;FS=0.000;MLEAC=2;MLEAF=1.00;MQ=60.00;QD=28.63;SOR=1.148	GT :A D: DP: GQ :PL	1/1:0, 35:35: 99:101 6,105, 0	BF. 7	yes
86	G A	02.	A						
8		06	S						

Table S4. The negative controls of the top 20 bacteria and fungi

NC1	NC2	NC3	NC4	Bacteria Species
13.74045801 52672 0	5.4635545703 4815 0	18.294016559 9125 0	4.0456208306 4343 29.600719917 053	<i>Pseudomonas(Pseudomonas)</i> <i>Capnocytophaga(Capnocytophaga)</i>
0	22.943017342 5479	0.1874707077 01922	0.5145059373 59391	<i>Allorhizobium-Neorhizobium-Pararhizobium-Rhizobium(Allorhizobium-Neorhizobium-Pararhizobium-Rhizobium)</i>
0	22.832181509 9752	0	0.0606451865 32856	<i>Brevundimonas(Brevundimonas)</i>
19.84732824 42748	0.0260790194 288695	1.4945581419 5699	0.1291155584 2479	<i>Kocuria(Kocuria)</i>
17.55725190 83969	0	0	0	<i>Pseudoxanthomonas(Pseudoxanthomonas)</i>
0.763358778 625954	4.3682357543 3564	1.3279175128 8861	7.1972142340 1217	<i>(Proteobacteria)(Proteobacteria)</i>
0	2.3601512583 1269	9.4099880227 0479	1.5493867010 9748	<i>Delftia(Delftia) aureus,Candida albicans</i>
3.053435114 50382	2.1189203285 9565	4.9523511951 2576	0.8431637224 40675	<i>(Comamonadaceae)(Comamonadaceae)</i>
7.633587786 25954	0.0521580388 577389	0.6092798000 31245	0.3462644521 3921	<i>Corynebacterium(Corynebacterium)</i>
3.816793893 12977	0.5998174468 63998	3.6765088788 2102	0.0469511121 544692	<i>Chryseobacterium(Chryseobacterium)</i>
3.053435114 50382	1.1148780805 8417	2.4058740821 7466	1.3068059549 6606	<i>(Bacteria) (Bacteria)</i>
0	1.2778719520 146	0.6249023590 06405	4.1043097208 3651	<i>Enhydrobacter(Enhydrobacter)</i>
1.526717557 25191	0.8475681314 38258	2.7339478206 5302	0.6436214957 84181	<i>Acinetobacter(Acinetobacter)</i>
3.053435114 50382	0.5411396531 49042	2.1298755402 8016	0.0039125926 795391	<i>(Sphingomonadaceae)(Sphingomonadaceae)</i>
0	0	0	5.5128430854 7059	<i>Capnocytophaga uncultured Capnocytophaga sp.</i>
0	0	0.2812060615 52882	5.1959230784 2792	<i>Fusobacterium (Fusobacterium)</i>
0	5.1766853566 3059	0.0989428735 093475	0	<i>Caulobacter (Caulobacter)</i>
4.580152671 75572	0	0.4895068478 88351	0	<i>Corynebacterium uncultured bacterium</i>
0	5.0397705046 2903	0	0	<i>(Caulobacteraceae)(Caulobacteraceae)</i>

				Fungi Species
85.71428571	54.46428571	87.06165337	83.40168357	<i>AglaucusCBS516.65</i>
0	15.47619048	8.12761109	7.446578891	<i>AmnigerUAMH3544</i>
14.28571429	9.821428571	2.709203697	3.345564429	<i>AmutatusUAMH3576</i>
0	8.779761905	0.050639321	1.057630045	<i>AsydowiiCBS593.65</i>
0	6.398809524	0.215217116	0.280595726	<i>BcinereaB05-10</i>
0	4.31547619	0.025319661	0.884955752	<i>CeuropaeaCBS101466</i>
0	0	0.746929991	1.273472912	<i>CparapsilosisCDC317</i>
0	0	0	1.208720052	<i>CqueenslandicumCBS280.77</i>
0	0	0.113938473	1.036045759	<i>EoligospermaCBS72588</i>
0	0.595238095	0.36713508	0	<i>MglobosaCBS7966</i>
0	0	0.582352196	0.06475286	<i>MrestrictaKCTC27527</i>
0	0.148809524	0	0	<i>PjiroveciiSE8</i>
0	0	0	0	<i>PrubensWisconsin54-1255</i>
0	0	0	0	<i>Smacrosporak-hell</i>
0	0	0	0	<i>YlipolyticaCLIB122</i>
0	0	0	0	<i>YlipolyticaCLIB89W29</i>

Table S5. Escherichia coli and Aspergillus in bronchoalveolar lavage fluid detected by RNA-seq, confirmed by sputum culture

Sample	Clinical outcomes	RNA-seq	Sputum culture
s26	death	<i>Escherichia coli</i> , <i>Pseudomonas</i> , <i>Neisseria</i>	<i>Escherichia coli</i>
s2	death	<i>Escherichia coli</i> , <i>Streptococcus pneumoniae</i> , <i>Granulicatella</i>	<i>Escherichia coli</i>
s28	death	<i>Escherichia coli</i> , <i>Gemella</i> , <i>Klebsiella</i>	<i>Escherichia coli</i>
ss21	survival	<i>Aspergillus</i> , <i>Corynebacterium</i> , <i>Neisseria</i>	<i>Aspergillus</i>
ss7	death	<i>Aspergillus</i> , <i>Catelicoccus</i> , <i>Aliterella</i>	<i>Aspergillus</i>

Table S6. Characteristics of the HAP/CAP

	Survival(n=20) Median (IQR)	Death(n=7) Median (IQR)	<i>P</i> value
Age, yr	73.50 (26.00)	71.00 (24.00)	0.69
Sex			1.00
Male, n (%)	16.00(75.00)	6.00(85.71)	
Female, n (%)	4.00(25.00)	1.00(14.29)	

HAP/CAP:Hospital/Community Acquired Pneumonia,IQR=interquartile range, *P* values were evaluated by Mann-Whitney test or Chi-square test ,Two-tailed degree of significance between groups was set at $P < 0.05$.

Table S7. Sputum culture and sequencing analysis identified pathogens in the HAP/CAP cohort

Sample	RNA-seq of Bronchoalveolar Lavage Fluid	Sputum culture
B20	<i>Proteus mirabilis</i>	<i>Proteus mirabilis</i>
B24	<i>C.albicans</i>	<i>Candida albicans</i>
B25	<i>C.albicans</i>	<i>Candida albicans</i>
B26	<i>Enterococcus</i>	negative
B27	<i>Acinetobacter baumannii</i>	<i>Acinetobacter baumannii</i>
B28	<i>C.albicans,Acinetobacter baumannii</i>	<i>Candida albicans,Acinetobacter baumannii</i>
B37	<i>Acinetobacter baumannii</i>	<i>Acinetobacter baumannii</i>
X13	<i>Staphylococcus aureus,Candida albicans</i>	<i>Staphylococcus aureus,Candida albicans</i>
X23	<i>Enterococcus,Candida</i>	<i>Enterococcus,Candida</i>
X5	<i>Acinetobacter baumannii,Klebsiella pneumoniae</i>	<i>Acinetobacter baumannii,Klebsiella pneumoniae</i>
X6	<i>Neisseria</i>	<i>Viridans Streptococci,Neisseria</i>
X8	<i>Pseudomonas aeruginosa</i>	<i>Pseudomonas aeruginosa</i>
X9	<i>Pseudomonas aeruginosa</i>	<i>Pseudomonas aeruginosa</i>
X3	<i>Acinetobacter baumannii</i>	<i>Acinetobacter baumannii</i>