

Supplementary Table 1. Super-enhancers of HCT116 and sigmoid colon tissue				
CHROM	START	STOP	OVERLAP_GENES	sample
chr4	30715635	30985709	PCDH7	HCT116
chr12	76012567	76308058		HCT116
chr8	94806886	94974157	PDP1,TMEM67	HCT116
chr1	8062403	8276419	ERRFI1	HCT116
chr17	57819217	57948130	TUBD1,MIR21,TMEM49	HCT116
chr8	128213237	128320517		HCT116
chr18	3583398	3671591	FLJ35776,DLGAP1	HCT116
chrX	45556718	45712940	MIR221,MIR222	HCT116
chr9	21504387	21620428	MIR31,LOC554202	HCT116
chr8	126648569	126715409		HCT116
chr7	130577088	130613286	LOC646329	HCT116
chr2	226962857	227081710		HCT116
chr10	95066150	95240291	MYOF	HCT116
chr4	169396470	169587808	PALLD,DDX60L	HCT116
chr2	227474323	227667763	IRS1	HCT116
chr12	66211168	66360711	HMGA2,RPSAP52	HCT116
chr4	75533644	75609159		HCT116
chr1	66720417	66842146	PDE4B	HCT116
chr12	65815524	65960302	MSRB3	HCT116
chr3	98230313	98310800	CPOX,CLDND1,GPR15	HCT116
chr1	94626600	94801626	ARHGAP29	HCT116
chr10	114273809	114301008	VTI1A	HCT116
chr12	89311073	89367919		HCT116
chr8	126120895	126252220	NSMCE2	HCT116
chr6	151325928	151463163	MTHFD1L	HCT116
chr15	67313619	67489329	SMAD3	HCT116
chr20	52719281	52796961	CYP24A1	HCT116
chr4	11586609	11655306		HCT116
chr8	144978519	145051891	PLEC,PARP10,MIR661	HCT116
chr12	65994430	66093741		HCT116
chr11	118758450	118819179	CXCR5,BCL9L	HCT116
chr9	21666769	21713247		HCT116
chr10	97067908	97329002	SORBS1	sigmoid col
chr8	30239370	30463132	GTF2E2,RBPMS	sigmoid col
chr2	218593831	218869769	TNS1,DIRC3	sigmoid col
chr10	80819113	81097206	ZMIZ1,LOC283050	sigmoid col
chr7	134361432	134652706	BPGM,CALD1	sigmoid col
chr2	240119391	240322816	HDAC4,MIR4269	sigmoid col
chr14	69307184	69453786	ACTN1	sigmoid col
chr2	238026837	238331022	COL6A3	sigmoid col
chr22	36673350	36786955	MYH9	sigmoid col
chr1	39541741	39902274	KIAA0754,MACF1	sigmoid col
chr12	124836892	125054594	NCOR2	sigmoid col
chr17	75345538	75491773	SEPT9,MIR4316	sigmoid col
chr2	206544923	206676527	NRP2	sigmoid col
chr4	119808810	119968619	SYNPO2	sigmoid col
chr9	124022694	124138630	STOM,GSN	sigmoid col
chr16	15790669	15974706	NDE1,MYH11,C16orf63	sigmoid col
chr19	3332873	3470677	NFIC	sigmoid col

chr8	38584294	38824118	TACC1,PLEKHA2	sigmoid col
chr11	12381536	12579807	PARVA	sigmoid col
chr12	11800965	12039289	ETV6	sigmoid col
chr14	68541323	68777621	RAD51L1	sigmoid col
chr1	10688467	10857232	CASZ1,PEX14	sigmoid col
chr21	47370259	47563978	FTCD,COL6A1,COL6A2	sigmoid col
chr2	66651643	66814445	MEIS1	sigmoid col
chr2	220267587	220352786	DES,SPEG	sigmoid col
chr1	226814470	226929055	ITPKB	sigmoid col
chr3	66391598	66558774	LRIG1,SLC25A26	sigmoid col
chr19	13106553	13216371	TRMT1,NFIX,LYL1	sigmoid col
chr17	46616216	46679458	HOXB4,HOXB6,LOC404266,HOXB	sigmoid col
chr4	7744682	7981377	ABLIM2,AFAP1,AFAP1-AS1	sigmoid col
chr1	22179166	22288972	HSPG2	sigmoid col
chr10	88420951	88609766	LDB3,OPN4,BMPRI1A	sigmoid col
chr1	19667678	19861084	CAPZB	sigmoid col
chr17	735217	884454	NXN	sigmoid col
chr9	94527617	94717610	ROR2	sigmoid col
chr11	19617115	19869182	NAV2,LOC100126784	sigmoid col
chr3	57984099	58163937	FLNB	sigmoid col
chr16	16039874	16254980	ABCC1,ABCC6	sigmoid col
chr3	123324340	123443391	MYLK	sigmoid col
chr9	117777933	117931898	TNC,DEC1	sigmoid col
chr3	73520110	73683862	PDZRN3	sigmoid col
chr3	71005546	71194823	FOXP1	sigmoid col
chr17	55962597	56034365	CUEDC1	sigmoid col
chr1	203592431	203696209	ATP2B4	sigmoid col
chr14	74177567	74265026	C14orf43,PNMA1	sigmoid col
chr1	27800771	27931312	WASF2,AHDC1	sigmoid col
chr14	92977376	93161366	RIN3	sigmoid col
chr5	58364186	58625634	PDE4D	sigmoid col
chr20	42726202	42841796	JPH2,C20orf111	sigmoid col
chr10	71151703	71268339	HK1,TSPAN15,TACR2	sigmoid col
chr1	8401601	8538907	SLC45A1,RERE	sigmoid col
chr16	70672684	70794789	LOC100130894,VAC14,MTSS1	sigmoid col
chr10	81134663	81214794	ZCCHC24	sigmoid col
chr18	42258308	42440606	SETBP1	sigmoid col
chr5	156874035	157004958	NIPAL4,ADAM19	sigmoid col
chr14	55030911	55217183	SAMD4A	sigmoid col
chr10	78923221	79081767	KCNMA1	sigmoid col
chr13	97862914	98022524	MBNL2	sigmoid col
chr11	12131474	12271572	MICAL2	sigmoid col
chr10	63656893	63857367	ARID5B	sigmoid col
chr4	169717184	169852624	PALLD	sigmoid col
chr3	159477796	159629267	IQCJ-SCHIP1,SCHIP1	sigmoid col
chr10	125502169	125673984	CPXM2	sigmoid col
chr9	124318012	124544007	DAB2IP	sigmoid col
chr9	132642101	132808219	USP20,FNBP1	sigmoid col
chr2	47181687	47336185	TTC7A,C2orf61	sigmoid col
chr20	45924428	46014038	ZMYND8,LOC100131496	sigmoid col
chr14	59646281	59846774	DAAM1	sigmoid col
chr3	64090594	64282175	PRICKLE2	sigmoid col

chr11	65237402	65278433	MALAT1	sigmoid col
chr12	109023871	109129285	SELPLG,CORO1C	sigmoid col
chr9	79412710	79522712	PRUNE2	sigmoid col
chr13	110966059	111037875	COL4A2	sigmoid col
chr1	92175417	92357108	TGFB3	sigmoid col
chr3	123030630	123169932	ADCY5	sigmoid col
chr4	87919942	88045937	AFF1	sigmoid col
chr19	39125214	39227056	ACTN4,CAPN12,EIF3K	sigmoid col
chr4	37953028	38136565	TBC1D1,PTTG2	sigmoid col
chr9	133639529	133763516	ABL1	sigmoid col
chr1	201847186	201919717	SHISA4,LMOD1,IPO9	sigmoid col
chr11	113979520	114074224	ZBTB16	sigmoid col
chr14	99976953	100072481	CCDC85C,CCNK	sigmoid col
chr7	27199991	27240800	HOXA10,HOXA9,MIR196B,HO	sigmoid col
chr1	203408496	203530711	PRELP,OPTC	sigmoid col
chr1	201416945	201483187	PHLDA3,CSRP1	sigmoid col
chr5	131712779	131842675	SLC22A5,C5orf56,IRF1	sigmoid col
chr5	172259497	172359615	ERGIC1	sigmoid col
chr19	11236442	11321307	KANK2,SPC24,LDLR,DOCK6	sigmoid col
chr4	174387053	174497382	NBLA00301,HAND2	sigmoid col
chr7	4670899	4817053	FOXX1,KIAA0415	sigmoid col
chr2	43519439	43714382	THADA	sigmoid col
chr10	592954	735712	DIP2C,C10orf108	sigmoid col
chr9	71030993	71176468	C9orf71,PGM5	sigmoid col
chr10	95135439	95243763	MYOF	sigmoid col
chr17	38588850	38716694	IGFBP4,TNS4,CCR7	sigmoid col
chr2	128386624	128435773	MYO7B,LIMS2,GPR17	sigmoid col
chr16	17389505	17511947	XYLT1	sigmoid col
chr17	71273682	71366126	CDC42EP4,SDK2	sigmoid col
chr17	17583962	17697820	SMCR5,RAI1	sigmoid col
chr9	72654432	72777291	MAMDC2	sigmoid col
chr5	148782443	148819183	MIR145,MIR143,LOC728264	sigmoid col
chr16	85546904	85708470	KIAA0182	sigmoid col
chr2	238766868	238841331	RAMP1	sigmoid col
chr2	238569476	238654272	LRRFIP1	sigmoid col
chr12	125088063	125271535	SCARB1	sigmoid col
chr7	5366560	5470660	TNRC18	sigmoid col
chr18	8701384	8861049	KIAA0802	sigmoid col
chr1	156425635	156484058	MEF2D	sigmoid col
chr1	225597192	225677621	LBR,ENAH	sigmoid col
chr2	36579524	36743370	CRIM1	sigmoid col
chr6	56299611	56439244	DST	sigmoid col
chr4	148652156	148788088	ARHGAP10	sigmoid col
chr3	141079405	141171329	ZBTB38	sigmoid col
chr9	132934813	133005625	NCS1	sigmoid col
chr20	43145668	43247483	PKIG,SERINC3	sigmoid col
chr20	60876684	60958362	ADRM1,LAMA5	sigmoid col
chr5	149107516	149211907	PPARGC1B	sigmoid col
chr9	101704282	101834447	COL15A1	sigmoid col
chr19	1238058	1276973	C19orf23,CIRBP,C19orf24,ATF	sigmoid col
chr7	101498850	101606055	CUX1	sigmoid col
chr16	1199202	1254782	CACNA1H	sigmoid col

chr1	2160092	2263332	MORN1,SKI	sigmoid col
chr13	33742181	33864932	STARD13	sigmoid col
chr2	23724453	23846277	KLHL29	sigmoid col
chr2	20765692	20852503	HS1BP3	sigmoid col
chr17	43343399	43399417	LOC100133991,MAP3K14	sigmoid col
chr1	202466641	202569811	SYT2,PPP1R12B	sigmoid col
chr14	93418611	93583402	ITPK1,ITPK1-AS1	sigmoid col
chr19	6035243	6110632	RFX2	sigmoid col
chr2	1594542	1762048	PXDN	sigmoid col
chr11	118740190	118805385	CXCR5,BCL9L	sigmoid col
chr11	10599218	10732178	LOC100129827,MRVI1	sigmoid col
chr10	7575867	7713729	ITIH5	sigmoid col
chr11	68764236	68857608	TPCN2,MRGPRF	sigmoid col
chr10	79255372	79401549	KCNMA1	sigmoid col
chr9	672906	759755	KANK1	sigmoid col
chr16	86523531	86553845	LOC400550,FOXF1	sigmoid col
chr1	61508425	61670191	NFIA	sigmoid col
chr9	129837952	129965851	RALGPS1,ANGPTL2	sigmoid col
chr1	162621556	162706941	DDR2	sigmoid col
chr14	32866796	32994109	AKAP6	sigmoid col
chr6	34981284	35064986	ANKS1A	sigmoid col
chr11	73017480	73098013	ARHGEF17,RELT	sigmoid col
chr9	130253859	130348843	LRSAM1,FAM129B	sigmoid col
chr5	146762126	146893083	STK32A,DPYSL3	sigmoid col
chr3	194822790	194981545	C3orf21	sigmoid col
chr12	6276111	6347067	CD9	sigmoid col
chr12	122833581	122922866	CLIP1	sigmoid col
chr13	110905931	110965944	COL4A2,COL4A1	sigmoid col
chr9	90112168	90236181	DAPK1	sigmoid col
chr14	65077445	65231705	SPTB,PLEKHG3	sigmoid col
chr12	109163685	109253002	SSH1	sigmoid col
chr3	11539082	11686457	VGLL4,ATG7	sigmoid col
chr16	84851819	84987869	CRISPLD2	sigmoid col
chr9	137528580	137631128	COL5A1	sigmoid col
chr8	142126398	142185325	DENND3	sigmoid col
chrX	135228332	135298250	FHL1,MAP7D3	sigmoid col
chr11	12783407	12937416	TEAD1	sigmoid col
chr20	47956869	48101382	KCNB1	sigmoid col
chr2	161124304	161286771	RBMS1	sigmoid col
chr6	151559643	151661227	AKAP12	sigmoid col
chr5	14142004	14221452	TRIO	sigmoid col
chr17	79300430	79404230	BAHCC1,TMEM105	sigmoid col
chr15	63332306	63400991	TPM1	sigmoid col
chr22	41762080	41857565	TEF,PHF5A,TOB2	sigmoid col
chr22	31471398	31504800	SMTN,SELM	sigmoid col
chr14	77466311	77519802	C14orf4	sigmoid col
chr2	217535404	217627949	IGFBP5	sigmoid col
chr11	94464921	94580027	AMOTL1	sigmoid col
chr14	100196453	100290045	EML1	sigmoid col
chr1	164528211	164644042	PBX1	sigmoid col
chr1	156066200	156114581	LMNA	sigmoid col
chr8	124498557	124560709	FBXO32	sigmoid col

chr7	28037096	28181652	JAZF1	sigmoid col
chr13	99097085	99234797	FARP1,STK24	sigmoid col
chr19	47582415	47714915	SAE1,ZC3H4	sigmoid col
chr6	112500005	112620707	LAMA4	sigmoid col
chr7	5691818	5750139	RNF216	sigmoid col
chr6	108865426	108944881	FOXO3	sigmoid col
chr10	104503553	104579933	C10orf26	sigmoid col
chr1	54734312	54875336	SSBP3	sigmoid col
chr12	94060538	94182137	CRADD	sigmoid col
chr14	69244470	69287563	C14orf181,ZFP36L1	sigmoid col
chr7	115849675	115928979	TES	sigmoid col
chr1	36580070	36673586	MAP7D1,TRAPPC3	sigmoid col
chr12	54783803	54833637	ZNF385A,ITGA5	sigmoid col
chr9	132213147	132264695		sigmoid col
chr15	93561282	93634675	CHD2,RGMA	sigmoid col
chr14	68400418	68528086	RAD51L1	sigmoid col
chr18	57290187	57372921	CCBE1	sigmoid col
chr2	40542500	40686954	SLC8A1	sigmoid col
chr5	172158592	172234288	DUSP1	sigmoid col
chr11	117040136	117097967	PCSK7,TAGLN,PAFAH1B2,SIDT	sigmoid col
chr11	68078439	68175071	LRP5	sigmoid col
chr15	37368349	37426866	MEIS2	sigmoid col
chr3	188225391	188452589	LPP	sigmoid col
chr3	149244524	149380951	WWTR1	sigmoid col
chr11	125876120	126012385	CDON	sigmoid col
chr15	63120449	63213883	TLN2	sigmoid col
chr3	57873230	57961360	SLMAP	sigmoid col
chr1	9349430	9475511	SPSB1	sigmoid col
chr1	21619274	21674780	ECE1	sigmoid col
chr3	187921447	187968722	LPP	sigmoid col
chr22	46436271	46467014	C22orf26,LOC100271722,LOC	sigmoid col
chr4	141846189	141981686	RNF150	sigmoid col
chr5	123970162	124086007	ZNF608	sigmoid col
chr12	56091853	56126818	BLOC1S1,CD63,RDH5,ITGA7	sigmoid col
chr9	35487782	35565278	FAM166B,RUSC2	sigmoid col
chr19	48092751	48171743	GLTSCR1	sigmoid col
chr22	43281319	43405310	PACSIN2	sigmoid col
chr12	15268027	15380741	RERG	sigmoid col
chr1	12598650	12683379	DHRS3	sigmoid col
chr1	154377066	154419815	IL6R	sigmoid col
chr17	42852367	42922393	GJC1,ADAM11	sigmoid col
chr7	75920137	76023434	HSPB1,YWHAG,SRCRB4D	sigmoid col
chr3	42053555	42143555	TRAK1	sigmoid col
chr14	94393756	94468144	C14orf48,FAM181A,ASB2	sigmoid col
chr9	130704493	130745146	FAM102A	sigmoid col
chr10	120965252	121078864	GRK5	sigmoid col
chr16	88803495	88852485	FAM38A	sigmoid col
chr16	27323992	27386418	IL4R	sigmoid col
chr5	67509755	67587304	PIK3R1	sigmoid col
chr7	137592839	137686997	CREB3L2	sigmoid col
chr10	126293018	126434844	FAM53B,LHPP	sigmoid col
chr12	109535862	109624404	UNG,ACACB	sigmoid col

chr3	124479910	124620347	ITGB5	sigmoid col
chr12	48192005	48224322	HDAC7	sigmoid col
chr20	35903313	35995346	MANBAL, SRC	sigmoid col
chr20	35437506	35495157	C20orf117	sigmoid col
chr6	57035092	57092216	BAG2, ZNF451, RAB23	sigmoid col
chr22	46467107	46491336	MIR3619, LOC400931	sigmoid col
chr16	81634224	81765552	CMIP	sigmoid col
chr17	76849214	76933001	TIMP2	sigmoid col
chr2	67007294	67142981		sigmoid col
chr1	204367384	204483013	PPP1R15B, PIK3C2B	sigmoid col
chr11	44746231	44808108	TSPAN18	sigmoid col
chr17	40497778	40589509	STAT3, PTRF	sigmoid col
chr10	123855760	123953009	TACC2	sigmoid col
chr19	16174554	16225919	TPM4, RAB8A	sigmoid col
chr11	8719370	8758695	ST5	sigmoid col
chr6	57107542	57183112	PRIM2	sigmoid col
chr7	116129452	116203091	CAV1, CAV2	sigmoid col
chr1	12484439	12580357	VPS13D, SNORA59A	sigmoid col
chr1	234717012	234755007	IRF2BP2	sigmoid col
chr11	65183541	65216947	MIR612, NEAT1	sigmoid col
chr11	10876226	10967707	LOC729013, ZBED5	sigmoid col
chr15	99392269	99508396	IGF1R	sigmoid col
chr14	69051375	69157548	RAD51L1	sigmoid col
chr10	18428205	18541375	CACNB2	sigmoid col
chr7	107557949	107657750	LAMB1, DLD	sigmoid col
chr13	47125988	47274875	LRCH1	sigmoid col
chr1	234622959	234702362		sigmoid col
chr15	96859951	96900823	NR2F2, MIR1469	sigmoid col
chr9	72997531	73057546	KLF9	sigmoid col
chr6	154747818	154833872	CNKS3	sigmoid col
chr16	73053000	73117173	ZFH3	sigmoid col
chr6	35435315	35467112	TULP1, TEAD3, RPL10A	sigmoid col
chr8	23149584	23230539	R3HCC1, LOXL2	sigmoid col
chr1	203236313	203297871	BTG2, LOC730227	sigmoid col
chr8	11652611	11756002	FDFT1, CTSB	sigmoid col
chr16	50581639	50662105	NKD1	sigmoid col
chr2	43437386	43506425	THADA, LOC100129726, ZFP36	sigmoid col
chr10	47081331	47149744	LOC728643, PPYR1, LOC64365	sigmoid col
chr22	36835145	36878966	TXN2	sigmoid col
chr6	56502175	56642381	DST	sigmoid col
chr17	38239383	38271613	NR1D1, THRA	sigmoid col
chr22	36223683	36327645	RBFOX2	sigmoid col
chr1	236134203	236232684	NID1	sigmoid col
chr12	122488077	122530621	BCL7A, MLXIP	sigmoid col
chr1	225760700	225851423	ENAH	sigmoid col
chr4	57894181	57986667	LOC255130, POLR2B, IGFBP7	sigmoid col
chr10	104341586	104437047	SUFU, ARL3, TRIM8	sigmoid col
chr3	111570158	111691184	PHLDB2	sigmoid col
chr10	79108145	79242237	KCNMA1	sigmoid col
chr7	104581435	104687801	MLL5, LOC100216545	sigmoid col
chr17	57405947	57485161	YPEL2	sigmoid col
chr7	150634953	150683198	KCNH2	sigmoid col

chr19	13941672	13964655	LOC284454,MIR24-2,ZSWIM4	sigmoid col
chr7	55085526	55208921	EGFR	sigmoid col
chr15	98503776	98569744	ARRDC4	sigmoid col
chr14	91073532	91166211	TTC7B	sigmoid col
chr2	227586129	227667358	IRS1	sigmoid col
chr6	110641889	110686680	C6orf186	sigmoid col
chr4	119655117	119715604	SEC24D	sigmoid col
chr19	15353171	15443983	BRD4	sigmoid col
chr15	67356504	67450304	SMAD3	sigmoid col
chr15	40613011	40636781	C15orf52	sigmoid col
chr3	30467238	30570282		sigmoid col
chr2	28806399	28941035	PLB1	sigmoid col
chr2	47030981	47110289	LOC100134259,LOC388948	sigmoid col
chr5	139015481	139091585	CXXC5	sigmoid col
chr11	123034074	123132374	ASAM	sigmoid col
chr1	95319765	95403896	LOC729970,SLC44A3,CNN3	sigmoid col
chr19	5921146	5994938	RFX2,RANBP3	sigmoid col
chrX	153575502	153613100	FLNA,EMD	sigmoid col
chr9	37993416	38071169	SHB	sigmoid col
chr17	2286130	2325648	METT10D,LOC284009,MNT	sigmoid col
chr15	65009551	65070516	RBPM5,MIR1272	sigmoid col
chr4	88390459	88465132	SPARCL1	sigmoid col
chr9	97805573	97859084	MIR24-1,MIR23B,C9orf3,MIR2	sigmoid col
chr10	75756886	75884412	AP3M1,VCL	sigmoid col
chr2	86410137	86553030	MRPL35,REEP1,IMMT	sigmoid col
chr12	4377173	4419299	CCND2	sigmoid col
chr20	10571910	10656582	C20orf94,JAG1	sigmoid col
chr15	89627766	89711757	ABHD2	sigmoid col
chr5	176881044	176928486	PRR7,DBN1,PDLIM7	sigmoid col
chr1	164715593	164828140	PBX1	sigmoid col
chr17	1325939	1401306	MYO1C,CRK,INPP5K	sigmoid col
chr3	112910936	113011256	WDR52,BOC	sigmoid col
chr17	36574414	36644029	ARHGAP23	sigmoid col
chr12	96581411	96658001	ELK3	sigmoid col
chr6	76108625	76204922	FILIP1	sigmoid col
chr19	39886574	39907815	ZFP36,PLEKHG2,MED29	sigmoid col
chr20	61320393	61393710	NTSR1	sigmoid col
chr17	48250244	48293550	COL1A1,SGCA	sigmoid col
chr10	73722050	73777707	CHST3	sigmoid col
chr19	12868209	12907877	HOOK2,PRDX2,JUNB,BEST2	sigmoid col
chr10	112499406	112599709	RBM20	sigmoid col
chr5	172063786	172127676	NEURL1B	sigmoid col
chr6	16697604	16772372	ATXN1	sigmoid col
chr18	55842632	55956791	NEDD4L	sigmoid col
chr22	38274049	38334283	MICALL1,EIF3L	sigmoid col
chr18	46446572	46502983	SMAD7	sigmoid col
chr9	139404505	139471332	NOTCH1	sigmoid col
chr10	35616549	35750728	CCNY	sigmoid col
chr14	53328578	53428011	FERMT2	sigmoid col
chr14	70076712	70194335	KIAA0247	sigmoid col
chr8	124629210	124720848	KLHL38,ANXA13	sigmoid col
chr17	78988848	79072229	BAIAP2,FLJ90757	sigmoid col

chr17	57881455	57934720	MIR21,TMEM49	sigmoid col
chr17	76309768	76416976	SOCS3,PGS1	sigmoid col
chr11	12692301	12768861	TEAD1	sigmoid col
chr6	111860433	111931087	TRAF3IP2,LOC643749	sigmoid col
chr13	21564071	21654663	LATS2	sigmoid col
chr17	38440173	38514852	RARA,CDC6	sigmoid col
chr8	26433372	26517506	DPYSL2	sigmoid col
chr11	2387145	2441934	TSSC4,CD81,TRPM5	sigmoid col
chr19	3632861	3700511	PIP5K1C	sigmoid col
chr4	37861848	37933881	PGM2,TBC1D1	sigmoid col
chr2	109149701	109254763	LIMS1	sigmoid col
chr5	58978003	59096098	PDE4D	sigmoid col
chr10	521725	576032	DIP2C	sigmoid col
chr2	207979968	208033795	KLF7	sigmoid col
chr22	18371559	18488948	MIR648,MICAL3	sigmoid col
chr2	218220948	218305822	DIRC3	sigmoid col
chr3	187968830	187999483	LPP	sigmoid col
chr2	20577957	20667975	RHOB	sigmoid col
chr7	105409942	105548294	ATXN7L1	sigmoid col
chr1	31348445	31402303	SDC3	sigmoid col
chr8	103588289	103675843	KLF10	sigmoid col
chr10	134371726	134458649	INPP5A	sigmoid col
chr4	151486788	151520708	MAB21L2,LRBA	sigmoid col
chr12	119612670	119658413	HSPB8	sigmoid col
chr1	85986921	86078803	CYR61,DDAH1	sigmoid col
chr9	138947298	139002807	NACC2	sigmoid col
chr6	7106520	7189987	RREB1	sigmoid col
chr16	75075893	75146308	LDHD,ZNRF1	sigmoid col
chr5	171826882	171883748	SH3PXD2B	sigmoid col
chr10	101278938	101311740	NKX2-3	sigmoid col
chr9	14237944	14327352	NFIB	sigmoid col
chr20	56007710	56070969		sigmoid col
chr12	16721910	16767187	LMO3	sigmoid col
chr2	218111207	218205163	DIRC3	sigmoid col
chr11	64617001	64655859	EHD1	sigmoid col
chr1	150118651	150138830	PLEKHO1	sigmoid col
chr10	104153197	104171320	NFKB2,PSD	sigmoid col
chr10	29903485	29942368	SVIL	sigmoid col
chr20	48702182	48790076	TMEM189,UBE2V1,TMEM189	sigmoid col
chr2	60726799	60787299	BCL11A	sigmoid col
chr7	50719236	50798934	GRB10	sigmoid col
chr3	30638222	30735636	TGFBR2	sigmoid col
chr11	65042683	65098074	CDC42EP2,POLA2	sigmoid col
chr3	99551057	99602185	FILIP1L,C3orf26,MIR548G	sigmoid col
chr8	38261736	38326827	LETM2,FGFR1	sigmoid col
chr17	74676773	74706864	MXRA7	sigmoid col
chr1	19220787	19289575	ALDH4A1,IFFO2	sigmoid col
chr1	157961886	158019800	KIRREL	sigmoid col
chr3	50264320	50311383	GNAI2,SEMA3B	sigmoid col
chr1	8063343	8158430	ERRFI1	sigmoid col
chr1	2120414	2147468	LOC100128003,C1orf86	sigmoid col
chr12	27390901	27478271	STK38L	sigmoid col

chr14	68972191	69031834	RAD51L1	sigmoid col
chr10	79596279	79680812	DLG5	sigmoid col
chr7	158570050	158623810	ESYT2	sigmoid col
chr1	115580505	115643569	TSPAN2	sigmoid col
chr7	120627294	120690303	C7orf58	sigmoid col
chr12	109881244	109916175	UBE3B,MYO1H,KCTD10	sigmoid col
chr20	25202859	25292786	PYGB,ENTPD6,ABHD12	sigmoid col
chr14	90846545	90886471	CALM1	sigmoid col
chr17	45301627	45395406	ITGB3	sigmoid col
chr1	145433959	145458236	TXNIP,POLR3GL	sigmoid col
chr9	133022438	133071058		sigmoid col
chr8	120959030	121054329	DEPDC6	sigmoid col
chr1	85614932	85711936	SYDE2	sigmoid col
chr10	93329862	93395272	PPP1R3C,LOC100188947	sigmoid col
chr3	48029903	48131561	MAP4	sigmoid col
chr2	28611250	28643133	FOSL2	sigmoid col
chr10	75595628	75649631	CAMK2G	sigmoid col
chr14	102236604	102321184	PPP2R5C	sigmoid col
chr11	68685990	68736700	IGHMBP2	sigmoid col
chr6	10545317	10628249	GCNT2	sigmoid col
chr14	103981067	104013232	CKB,TRMT61A	sigmoid col
chr7	2756323	2837050	GNA12	sigmoid col
chr1	150530941	150553244	ADAMTSL4,MCL1	sigmoid col
chr4	187586792	187648675	FAT1	sigmoid col
chr1	221870972	221917321	DUSP10	sigmoid col
chr19	48184596	48249834	GLTSCR1,GLTSCR2,EHD2	sigmoid col
chr7	30877038	30972025	AQP1,INMT-FAM188B,FAM188A	sigmoid col
chr11	8775643	8813607	ST5	sigmoid col
chr20	31034326	31073948	C20orf112	sigmoid col
chr10	121238169	121335196	RGS10,TIAL1	sigmoid col
chr5	148757547	148773534	IL17B	sigmoid col
chr14	69504815	69574740	DCAF5	sigmoid col
chr15	90576757	90656152	ZNF710,IDH2	sigmoid col
chr18	9093618	9148138	NDUFV2,ANKRD12	sigmoid col
chr2	216516186	216589576	LOC646324	sigmoid col
chr9	134247926	134312421	BAT2L1	sigmoid col
chr17	48968703	49045988	SPAG9	sigmoid col
chr1	182990044	183071462	LAMC1	sigmoid col
chr11	74380735	74443171	CHRD12	sigmoid col
chr3	45980573	46049078	CXCR6,FYCO1	sigmoid col
chr7	93976981	94055470	COL1A2	sigmoid col
chr17	63002040	63076267	GNA13	sigmoid col
chr10	34990359	35105809	PARD3	sigmoid col
chr11	6613324	6637853	TPP1,ILK,RRP8,TAF10	sigmoid col
chr16	22199619	22253252	EEF2K	sigmoid col
chr1	68633839	68699207	WLS,MIR1262	sigmoid col
chr7	73865751	73929299	GTF2IRD1	sigmoid col
chr20	37554346	37617249	FAM83D,DHX35	sigmoid col
chr12	26844187	26984555	ITPR2	sigmoid col
chr18	72908650	72940424	ZADH2,TSHZ1	sigmoid col
chr18	74147317	74210194	ZNF516	sigmoid col
chr2	48735300	48800658	STON1,STON1-GTF2A1L,KLRAC1	sigmoid col

chr3	71244658	71321149	FOXP1	sigmoid col
chr10	134260591	134358926	INPP5A,C10orf91	sigmoid col
chr4	80917914	80996173	ANTXR2	sigmoid col
chr10	121409580	121446709	BAG3	sigmoid col
chr9	130805425	130872010	SLC25A25,NAIF1	sigmoid col
chr10	61594492	61669700	CCDC6	sigmoid col
chr2	232461634	232509602		sigmoid col
chr2	9305413	9404895	ASAP2	sigmoid col
chr22	44699369	44760760	KIAA1644	sigmoid col
chr10	21798563	21825442	MLLT10,C10orf140	sigmoid col
chr3	177156282	177209533		sigmoid col
chr19	46266780	46289665	SIX5,DMPK,DMWD	sigmoid col
chr11	119168414	119212304	CBL,MCAM,RNF26,C1QTNF5	sigmoid col
chr2	37867865	37918020	CDC42EP3	sigmoid col
chr17	38213871	38237889	THRA	sigmoid col
chr19	17186542	17256567	MYO9B	sigmoid col
chr8	59956982	60033412	TOX	sigmoid col
chr3	69786901	69842232	MITF	sigmoid col
chr15	65127482	65197933	PLEKHO2	sigmoid col
chr9	125108325	125169166	PTGS1	sigmoid col
chr1	8175372	8235316		sigmoid col
chr11	75012502	75064289	ARRB1,MIR326	sigmoid col
chr3	151974071	152003996	LOC401093,MBNL1	sigmoid col
chr12	6431171	6453746	PLEKHG6,TNFRSF1A	sigmoid col
chr11	75258793	75296382	SERPINH1	sigmoid col
chr9	12774502	12827397	C9orf150	sigmoid col
chr17	17711956	17754247	MIR33B,SREBF1,TOM1L2,RAI1	sigmoid col
chr12	53431738	53469153	SPRYD3,LOC283335,TENC1,ELAVL1	sigmoid col
chr7	128457839	128503963	CCDC136,FLNC,ATP6V1F	sigmoid col
chr20	55963562	55991450	RBM38	sigmoid col
chr1	25030875	25133651	CLIC4	sigmoid col
chr4	15002301	15045845	CPEB2	sigmoid col
chr17	55149355	55192078	AKAP1	sigmoid col
chr7	27134872	27161084	HOXA1,HOXA2,HOXA3	sigmoid col
chr1	15472102	15542662	TMEM51,C1orf126	sigmoid col
chr12	47458892	47499194	AMIGO2	sigmoid col
chr15	39718874	39797713		sigmoid col
chr17	55935568	55960848	CUEDC1	sigmoid col
chr11	122927309	123016970	HSPA8,ASAM	sigmoid col
chrX	2582021	2642515	CD99	sigmoid col
chr4	175025154	175079913		sigmoid col
chr18	9797450	9885275	RAB31	sigmoid col
chr12	26110101	26186440	RASSF8	sigmoid col
chr10	3784049	3830388	KLF6	sigmoid col
chr4	38663000	38699977	FLJ13197,KLF3	sigmoid col
chr12	125388500	125426128	UBC	sigmoid col
chr11	117720480	117760101	FXVD6	sigmoid col
chr9	36135788	36167072	GLIPR2	sigmoid col
chr12	68688635	68759780	MDM1	sigmoid col
chr7	27161291	27193446	HOXA7,HOXA5,HOXA6,HOXA4	sigmoid col
chr22	34181247	34283438	LARGE	sigmoid col
chr6	53152084	53226111	ELOVL5	sigmoid col

chr12	2160447	2187916	CACNA1C	sigmoid col
chr2	46038237	46118074	PRKCE	sigmoid col
chr12	7032801	7056201	ENO2,PTPN6,ATN1,C12orf57	sigmoid col
chr15	70339787	70415515	MIR629,TLE3	sigmoid col
chr12	120661372	120703574	PXN	sigmoid col
chr3	145834922	145896384	PLOD2	sigmoid col
chr1	206845718	206924160	MAPKAPK2	sigmoid col
chr1	221046494	221070203	HLX	sigmoid col
chr1	32029924	32059131	TINAGL1	sigmoid col
chr19	4038773	4078893	ZBTB7A	sigmoid col
chr5	66528676	66612324		sigmoid col
chr19	13259829	13293234	STX10,IER2	sigmoid col
chr4	156579826	156628010	GUCY1A3	sigmoid col
chr20	44033191	44095558	PIGT,DBNDD2,SYS1-DBNDD2	sigmoid col
chr16	85179947	85272599	LOC400548	sigmoid col
chr2	42272369	42295722	PKDCC	sigmoid col
chr13	111038226	111061147	COL4A2	sigmoid col
chr11	65331945	65362100	FAM89B,EHBP1L1,KCNK7,SSS	sigmoid col
chr14	90976225	91047813	TTC7B	sigmoid col
chr1	226964985	227016279		sigmoid col
chr20	21130366	21183811	PLK1S1	sigmoid col
chr3	48440804	48478254	PLXNB1,CCDC51	sigmoid col
chrX	39920805	39969960	BCOR	sigmoid col
chr9	116216141	116322303	RGS3	sigmoid col
chr20	35143959	35182009	DLGAP4,MYL9	sigmoid col
chr3	134068340	134094769	AMOTL2	sigmoid col
chr22	30667159	30745349	TBC1D10A,SF3A1,GATSL3	sigmoid col
chr5	171950336	171997826		sigmoid col
chr7	80451505	80537804	SEMA3C	sigmoid col
chr3	156760622	156830552	LOC100498859,LEKR1,LOC33	sigmoid col
chr1	226733295	226796544	C1orf95	sigmoid col
chr1	17853251	17918151	ARHGEF10L	sigmoid col
chr22	20861218	20924763	MED15	sigmoid col
chr1	32131404	32182175	COL16A1	sigmoid col
chr18	46064549	46124613	KIAA0427	sigmoid col
chr14	75724058	75782444	FOS	sigmoid col
chr16	20861350	20925989	LYRM1,DCUN1D3	sigmoid col
chr22	23505338	23632799	FBXW4P1,RAB36,BCR	sigmoid col
chr16	24696754	24806847	TNRC6A	sigmoid col
chr3	73434490	73507608	PDZRN3	sigmoid col
chr16	56267154	56312569	GNAO1,MIR3935	sigmoid col
chr4	126234874	126324122	FAT4	sigmoid col
chr10	31015855	31075970		sigmoid col
chr12	65058493	65091342	RASSF3	sigmoid col
chr12	2068546	2092578	DCP1B	sigmoid col
chr12	6640594	6667777	GAPDH,NOP2,NCAPD2,IFFO1	sigmoid col
chr1	27319790	27360493	TRNP1,FAM46B	sigmoid col
chr7	836592	885101	SUN1	sigmoid col
chr11	71697296	71757996	IL18BP,NUMA1,RNF121	sigmoid col
chr16	85382882	85431149		sigmoid col
chr9	132864347	132907456	GPR107	sigmoid col
chr17	53342254	53380890	HLF	sigmoid col

chr6	44170549	44206742	SLC29A1	sigmoid col
chr11	74316542	74363135	POLD3	sigmoid col
chr16	87395900	87428140	FBXO31,MAP1LC3B	sigmoid col
chr13	44865672	44907844		sigmoid col
chr10	101665791	101770972	NCRNA00093,DNMBP	sigmoid col
chr12	80264451	80341648	PPP1R12A	sigmoid col
chr10	30113983	30136339		sigmoid col
chr15	49713814	49764730	FGF7,C15orf33	sigmoid col
chr13	51796464	51867027	FAM124A	sigmoid col
chr13	110872253	110904774	COL4A1	sigmoid col
chr7	5592387	5678098	RNF216,FSCN1	sigmoid col
chr3	151909717	151943487		sigmoid col
chr17	75299951	75330415		09-Sep sigmoid col
chr8	42316065	42371823	SLC20A2	sigmoid col
chr1	208314564	208414558	PLXNA2	sigmoid col
chr5	37805863	37842233	GDNF	sigmoid col
chr2	23624540	23705454	KLHL29	sigmoid col
chr15	74273687	74346268	PML,STOML1	sigmoid col
chr12	96732602	96796107	CDK17	sigmoid col
chr12	46745599	46798912	SLC38A2	sigmoid col
chr17	29864987	29924399	RAB11FIP4,MIR193A,MIR365	sigmoid col
chr3	120131889	120172057	FSTL1	sigmoid col
chr7	143064818	143091346	ZYX,EPHA1	sigmoid col
chr3	64627257	64676008	ADAMTS9	sigmoid col
chr6	35685620	35702787	FKBP5,LOC285847	sigmoid col
chr12	94195320	94223507	CRADD	sigmoid col
chr5	131589843	131611217	PDLIM4	sigmoid col
chr9	75511580	75571215	ALDH1A1	sigmoid col
chr8	93063087	93121119	RUNX1T1	sigmoid col
chr22	28238691	28289216	PITPNB	sigmoid col
chr9	35678406	35702909	TPM2,CA9,TLN1	sigmoid col
chr21	46494555	46589505	ADARB1	sigmoid col
chr8	28189593	28270744	PNOC,ZNF395	sigmoid col

