



Gene content of Cancer +SNP 4x180k array

Array		4x180k Jacqueline Schoumans Array			
Number of genes covered		>1500			
Average backbone resolution		54kb/probe			
Average targeted gene resolution		1.83kb/probe			
Average resolution		290kb/SNP			
Gene name	Chromosome	Start (bp)	Stop (bp)	Number of probes	ISCN
A4GALT	chr22	43088127	43117304	9	22q13.2
AATF	chr17	35306175	35414170	17	17q12
ABCA3	chr16	2325877	2390747	35	16p13.3
ABCB1	chr7	87132948	87342611	49	7q21.12
ABCB10	chr1	229652329	229694442	15	1q42.13
ABCB8	chr7	150725510	150744869	26	7q36.1
ABCC1	chr16	16043434	16236931	39	16p13.11
ABCC11	chr16	48200821	48281479	33	16q12.1
ABCC3	chr17	48712138	48769063	45	17q21.33
ABCC5	chr3	183637722	183735803	46	3q27.1
ABCG2	chr4	89011416	89152474	22	4q22.1
ABI1	chr10	27035522	27150016	19	10p12.1
ABL1	chr9	133589268	133763062	26	9q34.12
ABL2	chr1	179068462	179198819	20	1q25.2
ABO	chr9	136130107	136150617	11	9q34.2
ACACA	chr17	35441923	35766902	76	17q12
ACE	chr17	61554422	61599209	49	17q23.3
ACER1	chr19	6306510	6333640	7	19p13.3
ACHE	chr7	100487615	100494594	20	7q22.1
ACOXL	chr2	111490150	111875799	41	2q13
ACP2	chr11	47260853	47270457	22	11p11.2
ACPP	chr3	132036211	132087142	16	3q22.1
ACSL3	chr2	223725652	223809357	29	2q36.1
ACSL6	chr5	131142683	131347936	56	5q31.1
ACTB	chr7	5566782	5603415	22	7p22.1
ACVR1B	chr12	52345451	52390862	18	12q13.13
ACVR1C	chr2	158388888	158485517	12	2q24.1
ADA	chr20	43248163	43280874	18	20q13.12
ADAM12	chr10	127700950	128077024	42	10q26.2
ADAMTS1	chr21	28208606	28217728	17	21q21.3
ADD3	chr10	111756126	111895323	36	10q25.1
ADIPOQ	chr3	186560463	186576252	4	3q27.3
AFF1	chr4	87856154	88062206	38	4q21.3-4q22.1
AFF3	chr2	100163718	100759201	68	2q11.2
AFF4	chr5	132211071	132299326	33	5q31.1
AHI1	chr6	135604670	135830219	55	6q23.3
AHR	chr7	17338246	17385776	16	7p21.1
AICDA	chr12	8754762	8765467	10	12p13.31
AKAP13	chr15	85777817	86292586	59	15q25.3

AKAP9	chr7	91570181	91739987	65	7q21.2
AKR1C3	chr10	5077549	5149878	14	10p15.1
AKT1	chr14	105235689	105262080	18	14q32.33
AKT2	chr19	40736224	40791302	46	19q13.2
AKT3	chr1	243651535	244013430	36	1q43-1q44
AL049692.1	chr11	32410604	32456891	73	11p13
ALDH2	chr12	112204346	112247782	15	12q24.12
ALK	chr2	29415640	30144432	56	2p23.2-2p23.1
ALOX15	chr17	4534214	4545589	18	17p13.2
ALPK2	chr18	56148479	56296189	18	18q21.31-18q21.32
AMACR	chr5	33986283	34008220	12	5p13.2
ANG	chr14	21152689	21162338	4	14q11.2
ANGPT2	chr8	6357172	6420930	14	8p23.1
ANKHD1	chr5	139781399	140099052	59	5q31.3
ANKRD11	chr16	89334035	89556969	25	16q24.3
ANKS1B	chr12	99128462	100378015	71	12q23.1
ANPEP	chr15	90328120	90358094	21	15q26.1
ANXA1	chr9	75766673	75785309	21	9q21.13
ANXA2	chr15	60639333	60690185	19	15q22.2
ANXA8	chr10	48255253	48271369	4	10q11.22
ANXA8L2	chr10	47746936	47763041	15	10q11.22
APAF1	chr12	99039078	99129204	30	12q23.1
APC	chr5	112043195	112203279	32	5q22.2
APCS	chr1	159557615	159558655	2	1q23.2
APEX1	chr14	20923354	20925933	5	14q11.2
APOBEC3C	chr22	39410088	39414931	4	22q13.1
APOE	chr19	45408956	45412650	6	19q13.32
APP	chr21	27252861	27543446	37	21q21.3
AQP5	chr12	50355279	50359459	4	12q13.12
AR	chrX	66763874	66950461	40	23q12
ARAF	chrX	47420516	47431307	47	23p11.23
ARCN1	chr11	118443105	118473730	15	11q23.3
AREG	chr4	75310851	75320726	7	4q13.3
ARHGAP20	chr11	110447766	110583912	25	11q23.1
ARHGAP26	chr5	142149949	142608576	53	5q31.3
ARHGAP8	chr22	45098355	45258665	37	22q13.31
ARHGEF1	chr19	42387267	42411597	32	19q13.2
ARHGEF11	chr1	156904632	157015162	53	1q23.1
ARHGEF12	chr11	120207787	120360645	59	11q23.3
ARHGEF17	chr11	73019334	73080136	28	11q13.4
ARID1A	chr1	27022524	27108595	31	1p36.11
ARID3A	chr19	926037	972781	11	19p13.3
ARL11	chr13	50202435	50208008	5	13q14.2
ARL6IP5	chr3	69134095	69155217	9	3p14.1
ARNT	chr1	150782181	150849244	41	1q21.3
ARSA	chr22	51063446	51066601	10	22q13.33
ASB2	chr14	94400499	94443076	16	14q32.12
ASNS	chr7	97481430	97501854	22	7q21.3
ASPSCR1	chr17	79935426	79975280	21	17q25.3
ASS1	chr9	133320094	133376661	26	9q34.11

ASXL1	chr20	30946147	31027122	25	20q11.21
ASXL2	chr2	25960557	26101385	19	2p23.3
ATF1	chr12	51157819	51214907	10	12q13.12
ATF2	chr2	175936978	176033110	34	2q31.1
ATIC	chr2	216176540	216214487	26	2q35
ATM	chr11	108093211	108239829	86	11q22.3
ATR	chr3	142168077	142297668	59	3q23
ATRX	chrX	76760378	77041702	88	23q21.1
AURKA	chr20	54944445	54967393	17	20q13.2
AXL	chr19	41725108	41767670	22	19q13.2
B2M	chr15	45003675	45010359	7	15q21.1
B3GAT1	chr11	134248398	134281812	14	11q25
B4GALT3	chr1	161141100	161147309	18	1q23.3
BAALC	chr8	104152938	104242533	14	8q22.3
BACH2	chr6	90636248	91006627	29	6q15
BAD	chr11	64037302	64052176	12	11q13.1
BAG3	chr10	121410882	121437331	8	10q26.11
BAK1	chr6	33540324	33548070	10	6p21.31
BAX	chr19	49458072	49465055	13	19q13.33
BCAR1	chr16	75262928	75301951	17	16q23.1
BCAS1	chr20	52553316	52687304	23	20q13.2
BCL10	chr1	85731931	85743771	7	1p22.3
BCL11A	chr2	60678302	60780702	27	2p16.1
BCL11B	chr14	99635624	99737861	7	14q32.2
BCL2	chr18	60790579	60987361	11	18q21.33
BCL2A1	chr15	80253231	80263788	3	15q25.1
BCL2L1	chr20	30252255	30311792	10	20q11.21
BCL2L11	chr2	111876955	111924587	19	2q13
BCL2L12	chr19	50168399	50177172	9	19q13.33
BCL3	chr19	45250962	45263301	19	19q13.32
BCL6	chr3	187439165	187463515	17	3q27.3
BCL7A	chr12	122457328	122499948	9	12q24.31
BCL7B	chr7	72950686	72972332	13	7q11.23
BCL9	chr1	147013182	147098017	15	1q21.2
BCR	chr22	23521891	23660224	49	22q11.23
BECN1	chr17	40962150	40976310	15	17q21.31
BEX1	chrX	102317579	102319168	6	23q22.1
BEX2	chrX	102564274	102565974	8	23q22.1
BIN1	chr2	127805603	127864931	23	2q14.3
BIRC2	chr11	102217942	102249401	15	11q22.2
BIRC3	chr11	102188215	102210134	19	11q22.2
BIRC5	chr17	76210277	76221715	6	17q25.3
BIRC6	chr2	32582096	32843966	90	2p22.3
BLACE	chr7	155149680	155160629	6	7q36.3
BLM	chr15	91260558	91358692	27	15q26.1
BLNK	chr10	97951458	98031333	27	10q24.1
BMI1	chr10	22605381	22620413	17	10p12.2
BMP6	chr6	7726332	7881655	15	6p24.3
BMPR1A	chr10	88516396	88684945	22	10q23.2
BOK	chr2	242498136	242513546	5	2q37.3

BRAF	chr7	140424943	140624564	24	7q34
BRCA1	chr17	41196312	41322290	33	17q21.31
BRCA2	chr13	32889611	32973805	35	13q13.1
BRD2	chr6	32936437	32949282	26	6p21.32
BRD3	chr9	136897963	136933657	21	9q34.2
BRD4	chr19	15348301	15443356	25	19p13.12
BRIP1	chr17	59759985	59940755	24	17q23.2
BRWD3	chrX	79926353	80065187	99	23q21.1
BTG1	chr12	92534074	92539673	2	12q21.33
BTK	chrX	100604435	100641183	59	23q22.1
BUB1	chr2	111395275	111435691	37	2q13
BUB1B	chr15	40453227	40513378	25	15q15.1
C10orf26	chr10	104503727	104576021	8	10q24.32
C11orf68	chr11	65684279	65686588	2	11q13.1
C12orf5	chr12	4430371	4462338	9	12p13.32
C15orf55	chr15	34635516	34649938	12	15q14
C6orf124	chr6	168224556	168227466	11	6q27
CAB39L	chr13	49882786	50018262	25	13q14.2
CADM1	chr11	115039938	115375675	39	11q23.3
CALCA	chr11	14988214	14993900	11	11p15.2
CAMK2G	chr10	75572259	75634343	36	10q22.2
CAMLG	chr5	134074191	134087847	5	5q31.1
CAMP	chr3	48264837	48266981	4	3p21.31
CANT1	chr17	76987799	77005899	8	17q25.3
CAPRIN1	chr11	34073230	34122703	35	11p13
CARD11	chr7	2945775	3083579	28	7p22.2
CARS	chr11	3022152	3078843	36	11p15.4
CASC5	chr15	40886218	40956540	33	15q15.1
CASP10	chr2	202047604	202094129	17	2q33.1
CASP3	chr4	185548850	185570663	14	4q35.1
CASP8	chr2	202098166	202152434	32	2q33.1
CASP9	chr1	15818765	15853029	16	1p36.21
CAV1	chr7	116164839	116201233	10	7q31.2
CBFA2T2	chr20	32077881	32237842	30	20q11.21-20q11.22
CBFA2T3	chr16	88941266	89043401	18	16q24.3
CBFB	chr16	67063050	67134961	9	16q22.1
CBL	chr11	119076752	119177651	20	11q23.3
CBLB	chr3	105374305	105588396	39	3q13.11
CBLC	chr19	45281126	45303891	11	19q13.32
CBS	chr21	44473301	44497053	37	21q22.3
CCDC6	chr10	61548521	61666414	18	10q21.2
CCDC88C	chr14	91737669	91884152	40	14q32.11
CCDC94	chr19	4247087	4269083	9	19p13.3
CCKBR	chr11	6280966	6293357	9	11p15.4
CCL17	chr16	57438679	57449974	4	16q21
CCL18	chr17	34391640	34399392	3	17q12
CCL19	chr9	34689564	34691274	5	9p13.3
CCL2	chr17	32582313	32584222	3	17q12
CCL21	chr9	34709002	34710121	4	9p13.3
CCL22	chr16	57392684	57400102	4	16q13-16q21

CCL3	chr17	34415602	34417515	3	17q12
CCL4	chr17	34431220	34433014	3	17q12
CCL5	chr17	34198495	34207797	8	17q12
CCNA1	chr13	37005967	37017019	12	13q13.3
CCNA2	chr4	122737599	122745087	9	4q27
CCNB1	chr5	68462837	68474072	13	5q13.2
CCNB1IP1	chr14	20779529	20801457	10	14q11.2
CCND1	chr11	69455855	69469242	7	11q13.3
CCND2	chr12	4382938	4414516	11	12p13.32
CCND3	chr6	41902671	42018095	23	6p21.1
CCNE1	chr19	30302901	30315216	12	19q12
CCNL1	chr3	156864297	156878549	29	3q25.31
CCNT1	chr12	49086752	49110781	10	12q13.11-12q13.12
CCR1	chr3	46243200	46249887	3	3p21.31
CCR4	chr3	32993066	32997841	2	3p22.3
CCR5	chr3	46411633	46417697	5	3p21.31
CCR7	chr17	38710021	38721724	4	17q21.2
CCR9	chr3	45927996	45944667	5	3p21.31
CD14	chr5	140011313	140013286	3	5q31.3
CD19	chr16	28943260	28950667	17	16p11.2
CD1C	chr1	158259563	158264564	8	1q23.1
CD1D	chr1	158149737	158154686	7	1q23.1
CD2	chr1	117297007	117311850	7	1p13.1
CD200	chr3	112051915	112081659	10	3q13.2
CD209	chr19	7804879	7812464	8	19p13.2
CD244	chr1	160799950	160832692	14	1q23.3
CD24P4	chrY	21154139	21154595	2	24q11.222
CD27	chr12	6554033	6560884	7	12p13.31
CD274	chr9	5450503	5470566	12	9p24.1
CD33	chr19	51728320	51743274	8	19q13.41
CD34	chr1	208057594	208084747	12	1q32.2
CD36	chr7	79998891	80308593	47	7q21.11
CD38	chr4	15779898	15851069	11	4p15.32
CD4	chr12	6896024	6929974	22	12p13.31
CD40	chr20	44746911	44758502	13	20q13.12
CD40LG	chrX	135730352	135742549	10	23q26.3
CD44	chr11	35160417	35253949	35	11p13
CD5	chr11	60869867	60895324	14	11q12.2
CD53	chr1	111415772	111442550	11	1p13.3
CD7	chr17	80272746	80275480	4	17q25.3
CD70	chr19	6583135	6591163	5	19p13.3
CD74	chr5	149781200	149792492	13	5q32
CD79A	chr19	42381190	42385439	5	19q13.2
CD79B	chr17	62006100	62009714	6	17q23.3
CD82	chr11	44585977	44641913	24	11p11.2
CD83	chr6	14117872	14137149	6	6p23
CD86	chr3	121774213	121839983	13	3q13.33
CD9	chr12	6308881	6347427	18	12p13.31
CD96	chr3	111260926	111384597	20	3q13.13-3q13.2
CDA	chr1	20915441	20945401	6	1p36.12

CDC20	chr1	43824599	43828874	14	1p34.2
CDC23	chr5	137523339	137549032	25	5q31.2
CDC25A	chr3	48198636	48229892	18	3p21.31
CDC42	chr1	22379120	22419437	15	1p36.12
CDC42EP1	chr22	37956454	37965412	5	22q13.1
CDC6	chr17	38443885	38459171	14	17q21.2
CDC73	chr1	193091147	193223031	25	1q31.2
CDH1	chr16	68771128	68869444	23	16q22.1
CDH11	chr16	64977656	65156101	23	16q21
CDH13	chr16	82660663	83829174	61	16q23.3
CDH17	chr8	95139399	95229531	27	8q22.1
CDK2	chr12	56360556	56366565	7	12q13.2
CDK4	chr12	58142005	58146164	10	12q14.1
CDK5RAP2	chr9	123151147	123342448	60	9q33.2
CDK6	chr7	92234235	92465908	21	7q21.2
CDKN1A	chr6	36644305	36655116	9	6p21.2
CDKN1B	chr12	12867992	12875305	8	12p13.1
CDKN1C	chr11	2904443	2907111	8	11p15.4
CDKN2A	chr9	21967751	21995300	63	9p21.3
CDKN2B	chr9	22002902	22009280	16	9p21.3
CDKN2C	chr1	51426417	51440305	5	1p32.3
CDX2	chr13	28536278	28543505	3	13q12.2
CEACAM6	chr19	42259329	42276113	7	19q13.2
CEBPA	chr19	33790840	33793470	4	19q13.11
CEBPB	chr20	48807376	48809212	2	20q13.13
CEBPD	chr8	48649471	48651648	2	8q11.21
CEBPE	chr14	23586513	23588825	2	14q11.2
CEBPG	chr19	33864609	33873591	4	19q13.11
CEP110	chr9	123837141	123939888	58	9q33.2
CES1	chr16	55836766	55867075	15	16q12.2
CFLAR	chr2	201980827	202029033	32	2q33.1
CHCHD7	chr8	57124245	57131357	10	8q12.1
CHEK2	chr22	29083731	29138410	27	22q12.1
CHIC2	chr4	54875956	54930857	12	4q12
CHIT1	chr1	203181955	203242769	26	1q32.1
CHL1	chr3	238279	451090	49	3p26.3
CHN1	chr2	175664091	175870097	35	2q31.1
CHUK	chr10	101948055	101989376	23	10q24.31
CIAPIN1	chr16	57462081	57481439	10	16q21
CIB2	chr15	78396948	78423886	6	15q25.1
CIC	chr19	42788817	42799949	20	19q13.2
CIITA	chr16	10971039	11023624	25	16p13.13
CISH	chr3	50643921	50649262	4	3p21.2
CITED2	chr6	139693393	139695757	7	6q24.1
CKMT2	chr5	80529104	80562216	16	5q14.1
CKS1B	chr1	154947129	154951725	10	1q21.3
CLC	chr19	40221896	40228668	4	19q13.2
CLEC12A	chr12	10103915	10168330	15	12p13.2
CLU1	chr12	92815307	92885867	12	12q22
CLU1OS	chr12	92813870	92821924	7	12q22

CLP1	chr11	57416465	57429340	7	11q12.1
CLTC	chr17	57697219	57773671	42	17q23.1
CLTCL1	chr22	19166986	19279239	48	22q11.21
CNBP	chr3	128888327	128902765	6	3q21.3
CNKSR2	chrX	21392536	21672813	55	23p22.12
CNR2	chr1	24197016	24285549	5	1p36.11
CNTF	chr11	58390146	58393198	2	11q12.1
CNTN2	chr1	205012325	205047627	29	1q32.1
COIL	chr17	55015563	55038411	7	17q22
COL18A1	chr21	46825052	46933634	58	21q22.3
COL1A1	chr17	48260650	48278993	64	17q21.33
COX6C	chr8	100885428	100906290	10	8q22.2
CPNE8	chr12	39045992	39301182	31	12q12
CPSF6	chr12	69633317	69668132	13	12q15
CR1	chr1	207669492	207813992	41	1q32.2
CREB1	chr2	208394461	208468155	27	2q33.3
CREB3L1	chr11	46299212	46342972	17	11p11.2
CREB3L2	chr7	137559725	137686813	25	7q33
CREBBP	chr16	3775055	3930722	37	16p13.3
CRK	chr17	1323983	1359552	6	17p13.3
CRKL	chr22	21271714	21308037	5	22q11.21
CRLF2	chrX	1314890	1331616	15	23p22.33
CRMP1	chr4	5749811	5894785	26	4p16.2
CRP	chr1	159682079	159684379	7	1q23.2
CRTC1	chr19	18794425	18893142	22	19p13.11
CRTC3	chr15	91073157	91188577	19	15q26.1
CRY1	chr12	107385145	107487598	17	12q23.3
CSAD	chr12	53551448	53575135	37	12q13.13
CSE1L	chr20	47662838	47713489	30	20q13.13
CSF1R	chr5	149432854	149492935	32	5q32
CSF2	chr5	131409483	131411859	4	5q31.1
CSF2RA	chrX	1387693	1429274	38	23p22.33
CSF3R	chr1	36931644	36948879	28	1p34.3
CSNK1A1	chr5	148871760	148931007	22	5q32
CSPG4	chr15	75966663	76005189	12	15q24.2
CST6	chr11	65779312	65780976	3	11q13.1
CTBP1	chr4	1205236	1243741	24	4p16.3
CTBP2	chr10	126676421	126849739	37	10q26.13
CTDP1	chr18	77439801	77514510	14	18q23
CTF1	chr16	30907928	30914881	3	16p11.2
CTNNA1	chr5	137946656	138270723	61	5q31.2
CTNNB1	chr3	41236328	41301587	32	3p22.1
CTSB	chr8	11700033	11726957	33	8p23.1
CTSG	chr14	25042762	25045466	6	14q12
CTTN	chr11	70244510	70282690	38	11q13.3
CUX1	chr7	101459240	101927250	52	7q22.1
CUX2	chr12	111471828	111788351	34	12q24.11-12q24.12
CX3CR1	chr3	39304985	39323226	8	3p22.2
CXCL12	chr10	44793038	44881941	14	10q11.21
CXCL13	chr4	78432907	78532988	8	4q21.1

CXCR1	chr2	219027568	219031725	4	2q35
CXCR3	chrX	70835766	70838367	6	23q13.1
CXCR4	chr2	136871919	136875735	8	2q22.1
CXCR5	chr11	118754475	118768508	2	11q23.3
CXCR7	chr2	237476430	237491001	3	2q37.3
CXXC4	chr4	105389469	105416058	8	4q24
CXXC5	chr5	139026884	139063467	17	5q31.2
CYBA	chr16	88709698	88717457	7	16q24.3
CYLD	chr16	50775961	50835846	24	16q12.1
CYP1A1	chr15	75011883	75017951	10	15q24.1
CYP1A2	chr15	75041184	75048941	7	15q24.1
CYP24A1	chr20	52769988	52790512	17	20q13.2
CYP2B6	chr19	41497204	41524301	9	19q13.2
CYP2D6	chr22	42522501	42540472	13	22q13.2
CYP3A5	chr7	99245817	99277621	28	7q22.1
DAB2	chr5	39371780	39462402	34	5p13.1
DAB2IP	chr9	124329336	124547809	35	9q33.2
DAP3	chr1	155657751	155708803	28	1q22
DAPK1	chr9	90112143	90323548	48	9q21.33
DAXX	chr6	33286335	33297046	16	6p21.32
DBC1	chr9	121915736	122131745	14	9q33.1
DBH	chr9	136501482	136524466	13	9q34.2
DBP	chr19	49133820	49140639	5	19q13.33
DCC	chr18	49867158	51062269	72	18q21.2
DCK	chr4	71858255	71896631	12	4q13.3
DDB2	chr11	47236493	47260767	14	11p11.2
DDIT3	chr12	57910373	57914300	5	12q13.3
DDX10	chr11	108535752	108811657	33	11q22.3
DDX5	chr17	62494374	62502484	18	17q23.3
DDX6	chr11	118620034	118661858	27	11q23.3
DEK	chr6	18224099	18265054	17	6p22.3
DENR	chr12	123237321	123255611	11	12q24.31
DGKG	chr3	185823457	186080026	51	3q27.2-3q27.3
DHFR	chr5	79922047	79950802	11	5q14.1
DHX15	chr4	24519064	24586173	24	4p15.2
DIO2	chr14	80663870	80682502	7	14q31.1
DKK1	chr10	54074056	54077802	8	10q21.1
DLEU1	chr13	50656307	51298199	70	13q14.2-13q14.3
DLEU2	chr13	50601269	50699856	22	13q14.2
DLEU2L	chr1	64014635	64015911	4	1p31.3
DLEU7	chr13	51285144	51418075	14	13q14.3
DLG1	chr3	196769431	197026171	56	3q29
DLL1	chr6	170591294	170599561	11	6q27
DLL4	chr15	41221547	41231237	11	15q15.1
DLX3	chr17	48067369	48072588	5	17q21.33
DMBT1	chr10	124320181	124403252	51	10q26.13
DMD	chrX	31132808	33357558	276	23p21.2-23p21.1
DMRT1	chr9	841690	969090	12	9p24.3
DMTF1	chr7	86781677	86825646	38	7q21.12
DNAJC2	chr7	102952921	102985320	25	7q22.1

DNASE1	chr16	3692939	3713727	21	16p13.3
DNMT3A	chr2	25455845	25565459	35	2p23.3
DNMT3B	chr20	31350191	31397162	27	20q11.21
DOCK2	chr5	169064251	169510386	85	5q35.1
DOK1	chr2	74776153	74784681	11	2p13.1
DOK2	chr8	21766384	21771371	8	8p21.3
DPP4	chr2	162848751	162931052	40	2q24.2
DSCR4	chr21	39323728	39493454	14	21q22.13
DUSP2	chr2	96808905	96811179	4	2q11.2
DUSP6	chr12	89741839	89746296	3	12q21.33
DUSP7	chr3	52082935	52090566	5	3p21.2
DUX4	chr4	191005267	191006883	0	4q35.2
DYRK1A	chr21	38739236	38887680	31	21q22.13
E2F1	chr20	32263489	32274210	7	20q11.22
E2F3	chr6	20402137	20493945	13	6p22.3
E2F5	chr8	86089460	86129387	18	8q21.2
EBAG9	chr8	110551940	110578225	17	8q23.2
EBF1	chr5	158122924	158526788	92	5q33.3
EDNRB	chr13	78469616	78493903	9	13q22.3
EEF1A1	chr6	74225473	74233520	19	6q13
EEF1A2	chr20	62119366	62130505	8	20q13.33
EEFSEC	chr3	127872297	128127485	21	3q21.3
EFNA5	chr5	106712590	107006596	22	5q21.3
EGF	chr4	110834040	110933422	33	4q25
EGFR	chr7	55086714	55324313	51	7p11.2
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EGR1	chr5	137801169	137805004	5	5q31.2
EIF2AK2	chr2	37326353	37384208	24	2p22.2
EIF4A2	chr3	186500994	186507689	22	3q27.3
EIF4E	chr4	99792835	99851788	19	4q23
EIF4EBP1	chr8	37887859	37917883	5	8p11.23
EIF4G2	chr11	10818597	10830657	43	11p15.3
EIF5A2	chr3	170606204	170626482	9	3q26.2
ELAC2	chr17	12894930	12921381	32	17p12
ELANE	chr19	852291	856242	5	19p13.3
ELF4	chrX	129198849	129244691	26	23q26.1
ELK1	chrX	47494920	47510003	24	23p11.23
ELK3	chr12	96588207	96661608	7	12q23.1
ELK4	chr1	205566707	205601090	16	1q32.1
ELL	chr19	18553475	18632937	18	19p13.11
ELN	chr7	73442119	73484237	46	7q11.23
EML1	chr14	100239936	100408393	31	14q32.2
EML4	chr2	42396490	42559688	35	2p21
EMP2	chr16	10622279	10674555	10	16p13.13
ENO1	chr1	8921061	8939308	20	1p36.23
ENPP2	chr8	120569326	120685693	40	8q24.12
EP300	chr22	41487790	41576081	34	22q13.2
EPAS1	chr2	46520806	46613836	28	2p21
EPHA1	chr7	143087382	143105985	21	7q34-7q35
EPHA3	chr3	89156674	89531284	31	3p11.1

EPHB2	chr1	23037332	23241818	29	1p36.12
EPO	chr7	100318423	100321323	5	7q22.1
EPOR	chr19	11487881	11495018	8	19p13.2
EPS15	chr1	51819935	51985000	43	1p32.3
ERBB2	chr17	37844393	37884915	36	17q12
ERBB3	chr12	56473892	56497128	33	12q13.2
ERBB4	chr2	212240446	213403565	73	2q34
ERC1	chr12	1099675	1605090	47	12p13.33
ERCC1	chr19	45910591	45982086	17	19q13.32
ERCC2	chr19	45854246	45873876	25	19q13.32
ERCC3	chr2	128014866	128051752	19	2q14.3
ERCC4	chr16	14014014	14046205	14	16p13.12
ERCC5	chr13	103459705	103528345	34	13q33.1
ERG	chr21	39751949	40033704	30	21q22.2
ERVWE1	chr7	92097695	92100738	1	7q21.2
ESR1	chr6	151977826	152450754	40	6q25.1
ETF1	chr5	137841784	137878989	22	5q31.2
ETS1	chr11	128328656	128457437	23	11q24.3
ETS2	chr21	40177231	40196879	13	21q22.2
ETV1	chr7	13930853	14031050	45	7p21.2
ETV4	chr17	41605212	41623762	15	17q21.31
ETV5	chr3	185764097	185828107	31	3q27.2
ETV6	chr12	11802788	12044558	65	12p13.2
ETV7	chr6	36322419	36356164	11	6p21.31
EVI2A	chr17	29643428	29648767	5	17q11.2
EVI2B	chr17	29630790	29641123	5	17q11.2
EWSR1	chr22	29663998	29696515	34	22q12.2
EXOSC2	chr9	133569108	133580248	15	9q34.12
EXT1	chr8	118806729	119124092	26	8q24.11
EXT2	chr11	44117099	44266979	31	11p11.2
EZH2	chr7	148504475	148581413	31	7q36.1
F13A1	chr6	6144318	6321246	30	6p25.1
F3	chr1	94994781	95007356	7	1p21.3
FAIM3	chr1	207077731	207096592	12	1q32.1
FAM107A	chr3	58549844	58613337	16	3p14.3-3p14.2
FAM123B	chrX	63404997	63425624	9	23q11.2
FANCA	chr16	89803959	89883065	46	16q24.3
FANCC	chr9	97861336	98079991	32	9q22.32
FANCD2	chr3	10068098	10143614	51	3p25.3
FANCE	chr6	35420138	35434880	10	6p21.31
FANCF	chr11	22644079	22647387	1	11p14.3
FANCG	chr9	35073832	35080013	23	9p13.3
FANCL	chr2	58386378	58468507	23	2p16.1
FAS	chr10	90729553	90775542	21	10q23.31
FASLG	chr1	172628154	172636014	5	1q24.3
FAT1	chr4	187508937	187647876	44	4q35.2
FBN1	chr15	48700503	48937985	76	15q21.1
FBXW7	chr4	153242410	153456172	26	4q31.3
FCER1A	chr1	159259504	159278014	7	1q23.2
FCER2	chr19	7753644	7767032	12	19p13.2

FCGR2B	chr1	161551101	161648444	15	1q23.3
FCRL1	chr1	157764193	157789895	17	1q23.1
FCRL2	chr1	157715521	157746922	18	1q23.1
FCRL3	chr1	157646271	157670775	23	1q23.1
FCRL4	chr1	157543539	157567870	18	1q23.1
FCRL5	chr1	157483167	157522310	27	1q23.1
FDX1	chr11	110300607	110335605	6	11q22.3
FER	chr5	108083523	108532542	40	5q21.3
FERMT3	chr11	63974150	63991354	20	11q13.1
FES	chr15	91426925	91439006	23	15q26.1
FEV	chr2	219845809	219850379	5	2q35
FGF2	chr4	123747863	123819391	6	4q27-4q28.1
FGF3	chr11	69624992	69633792	4	11q13.3
FGF4	chr11	69587797	69590171	4	11q13.3
FGF6	chr12	4537321	4554780	5	12p13.32
FGFR1	chr8	38268656	38326352	47	8p11.23-8p11.22
FGFR1OP	chr6	167412670	167455906	26	6q27
FGFR1OP2	chr12	27091316	27119583	12	12p11.23
FGFR2	chr10	123237848	123357972	40	10q26.13
FGFR3	chr4	1795034	1810599	28	4p16.3
FGR	chr1	27938575	27961788	21	1p36.11
FH	chr1	241660903	241683061	12	1q43
FHIT	chr3	59735036	61237133	72	3p14.2
FHL2	chr2	105974169	106054960	20	2q12.1-2q12.2
FHOD3	chr18	33877702	34360018	42	18q12.2
FIGF	chrX	15363713	15402498	17	23p22.2
FIP1L1	chr4	54243810	55161439	98	4q12
FLCN	chr17	17115526	17140502	22	17p11.2
FLI1	chr11	128555046	128683161	23	11q24.3
FLT1	chr13	28874489	29069265	45	13q12.2-13q12.3
FLT3	chr13	28577411	28674729	117	13q12.2
FLT3LG	chr19	49977486	49989487	10	19q13.33
FLT4	chr5	180028506	180076624	39	5q35.3
FLVCR1	chr1	213031597	213072705	16	1q32.3
FLVCR2	chr14	76041231	76045931	3	14q24.3
FMNL1	chr17	43299292	43324681	31	17q21.31
FMOD	chr1	203309753	203320617	9	1q32.1
FN1	chr2	216225163	216300895	60	2q35
FNBP1	chr9	132649466	132805473	36	9q34.11
FOLR1	chr11	71900602	71907345	9	11q13.4
FOS	chr14	75745481	75748937	4	14q24.3
FOSL2	chr2	28615315	28640179	8	2p23.2
FOXN2	chr2	48541776	48606434	11	2p16.3
FOXO1	chr13	41129817	41240734	10	13q14.11
FOXO3	chr6	108881038	109005977	14	6q21
FOXO3B	chr17	18566485	18585572	8	17p11.2
FOXO4	chrX	70316047	70323385	15	23q13.1
FOXP1	chr3	71003844	71633140	69	3p13
FOXP3	chrX	49106897	49121288	29	23p11.23
FPGS	chr9	130556876	130576606	27	9q34.11

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FRYL	chr4	48499378	48782339	92	4p11
FSTL3	chr19	676389	683392	6	19p13.3
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FYN	chr6	111981535	112194655	48	6q21
FZD4	chr11	86656721	86666433	3	11q14.2
FZD9	chr7	72848109	72850450	1	7q11.23
GAB2	chr11	77926343	78129394	29	11q14.1
GABRB3	chr15	26788693	27184686	29	15q12
GADD45A	chr1	68150744	68154021	6	1p31.3
GAPDH	chr12	6643093	6647537	17	12p13.31
GAS5	chr1	173833038	173838020	25	1q25.1
GAS7	chr17	9813926	10101868	35	17p13.1
GATA1	chrX	48644962	48652718	15	23p11.23
GATA2	chr3	128198270	128212028	15	3q21.3
GATA3	chr10	8095567	8117161	10	10p14
GCNT1	chr9	79034752	79122332	9	9q21.13
GFI1B	chr9	135820932	135867083	12	9q34.13
GGCT	chr7	30536237	30544460	10	7p14.3
GGH	chr8	63927638	63951730	17	8q12.3
GGT1	chr22	24979718	25024972	22	22q11.23
GIMAP4	chr7	150264365	150271041	6	7q36.1
GIT2	chr12	110367607	110434194	29	12q24.11
GLI1	chr12	57853918	57866045	16	12q13.3
GLI2	chr2	121493199	121750229	29	2q14.2
GLTSCR2	chr19	48248793	48260323	17	19q13.33
GMPR2	chr14	24701648	24708445	11	14q12
GMPS	chr3	155588325	155658457	26	3q25.31
GNA12	chr7	2767746	2883958	17	7p22.3-7p22.2
GNAQ	chr9	80331003	80646374	19	9q21.2
GNAS	chr20	57414773	57486247	46	20q13.32
GNB1L	chr22	19770747	19842462	13	22q11.21
GNLY	chr2	85912298	85925977	15	2p11.2
GOLGA5	chr14	93260650	93306304	17	14q32.12
GOPC	chr6	117639374	117923691	56	6q22.1
GPC3	chrX	132669773	133119922	32	23q26.2
GPHN	chr14	66974125	67648520	49	14q23.3
GRAMD1B	chr11	123396344	123498482	32	11q24.1
GRB2	chr17	73314157	73401790	13	17q25.1
GRB7	chr17	37894187	37903545	23	17q12
GRHRP	chr9	37422663	37436987	17	9p13.2
GRIA3	chrX	122318006	122624766	65	23q25
GRN	chr17	42422491	42430470	20	17q21.31
GSK3A	chr19	42734338	42746777	15	19q13.2
GSK3B	chr3	119540170	119813264	24	3q13.33
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GSTT1	chr22	24376133	24384680	13	22q11.23
GSTTP1	chr22	24340828	24347258	5	22q11.23
GSX2	chr4	54965690	54968672	3	4q12
GZMB	chr14	25100160	25103473	8	14q12
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HACE1	chr6	105175968	105307794	34	6q16.3
HCFC1	chrX	153213004	153237258	62	23q28
HCK	chr20	30639991	30689659	18	20q11.21
HCST	chr19	36393382	36395173	5	19q13.12
HDAC1	chr1	32757687	32799236	21	1p35.1
HDAC2	chr6	114254192	114332472	34	6q21
HDAC3	chr5	141000443	141016437	27	5q31.3
HDHD1	chrX	6966961	7066231	30	23p22.31
HEMGN	chr9	100689073	100707138	6	9q22.33
HERPUD1	chr16	56965748	56977793	10	16q13
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HGF	chr7	81328322	81399754	27	7q21.11
HHEX	chr10	94449712	94455397	7	10q23.33
HIBADH	chr7	27565061	27702614	13	7p15.2
HIC1	chr17	1958393	1962980	3	17p13.3
HIF1A	chr14	62162231	62214976	21	14q23.2
HIP1	chr7	75162621	75368280	43	7q11.23
HIP1R	chr12	123319000	123347507	40	12q24.31
HIPK2	chr7	139246316	139477577	27	7q34
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HLA-DPB1	chr6	33043703	33054978	14	6p21.32
HLA-G	chr6	29794744	29798902	10	6p22.1
HMGA1	chr6	34204577	34214008	9	6p21.31
HMGA2	chr12	66217911	66360075	25	12q14.3
HMGN2P46	chr15	45803334	45848928	11	15q21.1
HMGN4	chr6	26538572	26547160	4	6p22.2
HMHB1	chr5	143191726	143200284	2	5q31.3
HMMR	chr5	162887175	162918947	28	5q34
HNF1A	chr12	121416346	121441746	19	12q24.31
HNF1B	chr17	36046434	36105237	14	17q12
HNF4A	chr20	42984340	43060030	17	20q13.12
HNRNPA1	chr12	54674488	54679028	13	12q13.13
HNRNPA2B1	chr7	26229547	26241149	18	7p15.2
HNRNPD	chr4	83273651	83295656	24	4q21.22
HOOK3	chr8	42752075	42883255	32	8p11.21
HOXA10	chr7	27210210	27219880	14	7p15.2
HOXA11	chr7	27221129	27224842	4	7p15.2
HOXA13	chr7	27233122	27239725	5	7p15.2
HOXA4	chr7	27168126	27192217	10	7p15.2
HOXA6	chr7	27185015	27190222	5	7p15.2

HOXA7	chr7	27193335	27197555	8	7p15.2
HOXA9	chr7	27202057	27219632	24	7p15.2
HOXB3	chr17	46626232	46667634	23	17q21.32
HOXB5	chr17	46668619	46671323	3	17q21.32
HOXB6	chr17	46673114	46682354	9	17q21.32
HOXB9	chr17	46698518	46703720	3	17q21.32
HOXC11	chr12	54366912	54370203	2	12q13.13
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HOXD11	chr2	176968944	176974482	4	2q31.1
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HPRT1	chrX	133594183	133654543	31	23q26.2-23q26.3
HRAS	chr11	532242	537287	12	11p15.5
HRK	chr12	117299028	117319232	3	12q24.22
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HSPB1	chr7	75931861	75933612	5	7q11.23
HSPD1	chr2	198351305	198381461	25	2q33.1
HTT	chr4	3076408	3245676	85	4p16.3
HUS1	chr7	47735328	48019178	25	7p12.3
HYAL2	chr3	50355221	50360337	10	3p21.31
ICAM1	chr19	10381517	10397291	8	19p13.2
ICOSLG	chr21	45642874	45660849	10	21q22.3
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ID2	chr2	8818975	8824583	8	2p25.1
ID4	chr6	19837617	19840915	3	6p22.3
IDH1	chr2	209100951	209130798	24	2q34
IDH2	chr15	90626277	90645736	14	15q26.1
IDO1	chr8	39759794	39785963	16	8p11.21
IER3	chr6	30710976	30712331	3	6p21.33
IFNA1	chr9	21440440	21441315	1	9p21.3
IFNG	chr12	68548548	68553527	4	12q15
IFNGR1	chr6	137518621	137540586	15	6q23.3
IGF1	chr12	102789645	102874423	17	12q23.2
IGF1R	chr15	99192200	99507759	31	15q26.3
IGFBP2	chr2	217497551	217529159	9	2q35
IGHD	chr14	106303099	106312010	7	14q32.33
IGHG1	chr14	106202680	106209408	4	14q32.33
IGHM	chr14	106320349	106322323	4	14q32.33
IGHV3-21	chr14	106691673	106692203	2	14q32.33
IGKC	chr2	89156674	89157196	1	2p11.2
IGLL1	chr22	23915312	23922495	4	22q11.23
IKBKB	chr8	42128820	42189973	39	8p11.21
IKBKG	chrX	153769414	153796782	42	23q28
IKZF1	chr7	50343720	50472799	64	7p12.2
IKZF2	chr2	213864429	214017151	24	2q34
IKZF3	chr17	37913968	38020441	15	17q12
IL10	chr1	206940947	206945839	8	1q32.1
IL11	chr19	55875757	55881814	6	19q13.42

IL15	chr4	142557752	142655140	19	4q31.21
IL18	chr11	112013974	112034840	10	11q23.1
IL1A	chr2	113531492	113542167	8	2q13
IL1B	chr2	113587328	113594480	13	2q13
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IL21R	chr16	27413686	27463362	14	16p12.1
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IL22RA1	chr1	24446261	24469611	7	1p36.11
IL24	chr1	207070788	207077484	10	1q32.1
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IL2RB	chr22	37515126	37571094	18	22q12.3
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INSR	chr19	7112266	7294011	30	19p13.2
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IRF1	chr5	131817301	131826490	15	5q31.1
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ITGA4	chr2	182321619	182400914	41	2q31.3
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JAG1	chr20	10618332	10654608	31	20p12.2
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JUND	chr19	18390563	18392432	1	19p13.11

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KIAA0284	chr14	105331650	105363087	23	14q32.33
KIAA1549	chr7	138516126	138666064	26	7q34
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LEF1	chr4	108968701	109090112	29	4q25
LEP	chr7	127881337	127897681	5	7q32.1
LEPR	chr1	65886248	66107242	34	1p31.3
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LHX4	chr1	180199442	180244188	7	1q25.2
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LPP	chr3	187871072	188608460	54	3q27.3-3q28
LRG_92	chr1	115247078	115259515	30	1p13.2
LRMP	chr12	25205241	25261268	24	12p12.1
LRP1B	chr2	140988992	142889270	142	2q22.1-2q22.2
LRP5	chr11	68080077	68216743	38	11q13.2
LRRC32	chr11	76368568	76381791	6	11q13.5
LRRFIP1	chr2	238536219	238722325	45	2q37.3
LTBR	chr12	6484211	6500733	23	12p13.31
LYL1	chr19	13209848	13213681	5	19p13.2
LYN	chr8	56792372	56923939	16	8q12.1
LYZ	chr12	69742134	69748013	4	12q15
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MAL	chr2	95691422	95719737	7	2q11.1
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MAP2K1	chr15	66679155	66783882	14	15q22.31
MAP2K2	chr19	4090319	4124126	17	19p13.3
MAP2K4	chr17	11924135	12047050	18	17p12
MAP3K14	chr17	43340488	43394414	21	17q21.31
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MAP4	chr3	47892182	48130769	41	3p21.31
MAPK1	chr22	22108789	22221970	18	22q11.21-22q11.22
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MAPK8	chr10	49514698	49647403	30	10q11.22
MAPK9	chr5	179660143	179719099	25	5q35.3
MAPKAPK2	chr1	206858289	206907628	16	1q32.1
MAPRE1	chr20	31407699	31438211	9	20q11.21
MAPRE2	chr18	32556892	32725381	15	18q12.1-18q12.2
MAPT	chr17	43971748	44105703	28	17q21.31
MAS1	chr6	160327974	160329108	1	6q25.3
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MAX	chr14	65472892	65569227	14	14q23.3
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MDM2	chr12	69201956	69239214	33	12q15
MDM4	chr1	204485511	204542871	32	1q32.1
MDS2	chr1	23907985	23967058	13	1p36.11
ME2	chr18	48405419	48476160	19	18q21.2
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MED1	chr17	37560538	37607521	20	17q12
MEF2D	chr1	156433519	156470620	19	1q22
MEIS1	chr2	66660584	66799891	34	2p14
MEN1	chr11	64570988	64578766	19	11q13.1
MERTK	chr2	112656056	112787138	38	2q13
MET	chr7	116312248	116438440	34	7q31.2
METAP2	chr12	95867296	95909615	13	12q22
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MINA	chr3	97660661	97691301	23	3q11.2
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MIXL1	chr1	226411319	226414064	2	1q42.12
MKI67	chr10	129894923	129924649	24	10q26.2
MKL1	chr22	40806285	41032706	30	22q13.1-22q13.2
MKL2	chr16	14173145	14360629	25	16p13.12
MLF1	chr3	158288952	158325041	14	3q25.32
MLF2	chr12	6857170	6876641	15	12p13.31
MLH1	chr3	37034823	37107380	35	3p22.2
MLL	chr11	118307205	118397539	49	11q23.3
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MLL3	chr7	151832010	152133090	72	7q36.1
MLL5	chr7	104654626	104754808	43	7q22.3
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MLLT3	chr9	20341663	20622542	30	9p21.3
MLLT4	chr6	168227602	168372703	52	6q27
MLLT6	chr17	36861795	36886056	25	17q12
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MN1	chr22	28144265	28197486	10	22q12.1
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MNX1	chr7	156786745	156803370	8	7q36.3
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MOV10	chr1	113215763	113243368	35	1p13.2
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MPL	chr1	43803475	43818443	58	1p34.2
MPO	chr17	56347217	56358296	12	17q22
MRC1	chr10	18098352	18200091	2	10p12.33
MRVI1	chr11	10594638	10715504	41	11p15.4-11p15.3
MS4A1	chr11	60223225	60238233	18	11q12.2
MSH2	chr2	47630108	47789450	35	2p21

MSH3	chr5	79950467	80172631	35	5q14.1
MSH6	chr2	48010221	48034092	21	2p16.3
MSI2	chr17	55333212	55757658	31	17q22
MSLN	chr16	693262	818865	24	16p13.3
MSN	chrX	64887537	64961791	33	23q12
MSR1	chr8	15965387	16424999	51	8p22
MTAP	chr9	21802635	22032985	96	9p21.3
MTCP1	chrX	154289897	154376212	22	23q28
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MTOR	chr1	11166592	11322608	72	1p36.22
MTRR	chr5	7851299	7906138	36	5p15.31
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MUM1	chr19	1285890	1378430	21	19p13.3
MUTYH	chr1	45794835	45806142	28	1p34.1
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MYBL2	chr20	42295754	42345136	16	20q13.12
MYC	chr8	128747680	128753674	8	8q24.21
MYCL1	chr1	40361098	40367928	8	1p34.2
MYCN	chr2	16080686	16087129	5	2p24.3
MYH11	chr16	15796992	15950890	47	16p13.11
MYH9	chr22	36677323	36784063	60	22q12.3
MYO18A	chr17	27400528	27507430	69	17q11.2
MYST3	chr8	41786997	41909508	28	8p11.21
MYST4	chr10	76585340	76792380	34	10q22.2
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NAPA	chr19	47990891	48018497	11	19q13.32-19q13.33
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NCOA3	chr20	46130601	46285621	31	20q13.12
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NOS2	chr17	26083792	26127555	29	17q11.2
NOTCH1	chr9	139388896	139440314	37	9q34.3
NOTCH2	chr1	120454176	120612240	52	1p12-1p11.2
NOTCH3	chr19	15270445	15311792	34	19p13.12
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NOX4	chr11	89057524	89322779	35	11q14.3
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NPY1R	chr4	164245113	164265984	12	4q32.2
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NR3C1	chr5	142657496	142815077	36	5q31.3
NR3C2	chr4	148999913	149365850	33	4q31.23
NR4A1	chr12	52416616	52453291	15	12q13.13
NR4A3	chr9	102584137	102629173	12	9q22.33-9q31.1
NR5A2	chr1	199996730	200146552	19	1q32.1
NRAS	chr1	115247090	115259515	30	1p13.2
NRBP1	chr2	27650657	27665126	31	2p23.3
NRP1	chr10	33466420	33625190	36	10p11.22
NSA2	chr5	74062817	74072737	10	5q13.3
NSD1	chr5	176560026	176727216	44	5q35.2-5q35.3
NT5C2	chr10	104845940	104953056	36	10q24.32-10q24.33
NT5C3	chr7	33053742	33102409	19	7p14.3
NT5E	chr6	86159302	86205500	17	6q14.3
NTRK1	chr1	156785432	156851642	26	1q23.1
NTRK2	chr9	87283466	87638505	37	9q21.33
NTRK3	chr15	88402982	88799978	42	15q25.3
NUDCD1	chr8	110253148	110346614	17	8q23.1
NUMA1	chr11	71713910	71791739	58	11q13.4
NUP214	chr9	134000948	134110057	65	9q34.13
NUP98	chr11	3692313	3819022	55	11p15.4
OGG1	chr3	9791628	9829903	21	3p25.3
OLIG2	chr21	34398153	34401504	5	21q22.11

OMD	chr9	95176527	95186743	4	9q22.31
OPRK1	chr8	54138284	54164257	11	8q11.23
ORM1	chr9	117085336	117088755	8	9q32
OSBP2	chr22	31089769	31303811	39	22q12.2
OSM	chr22	30658818	30662829	5	22q12.2
OSMR	chr5	38845960	38945698	29	5p13.1
P2RX5	chr17	3575748	3599649	16	17p13.2
P2RX7	chr12	121570622	121623876	16	12q24.31
P2RY8	chrX	1581465	1656000	10	23p22.33
P4HB	chr17	79801037	79818545	26	17q25.3
PACRG	chr6	163148164	163736524	33	6q26
PADI4	chr1	17634690	17690499	22	1p36.13
PAF1	chr19	39876275	39881757	17	19q13.2
PAFAH1B2	chr11	117014983	117047610	15	11q23.3
PAK1	chr11	77032752	77185680	40	11q13.5-11q14.1
PALB2	chr16	23614483	23652678	15	16p12.2
PARK2	chr6	161768452	163148803	57	6q26
PARP1	chr1	224102741	226595780	98	1q42.11-1q42.12
PATZ1	chr22	31721790	31742218	7	22q12.2
PAWR	chr12	79985747	80084790	9	12q21.2
PAX3	chr2	223064607	223163715	18	2q36.1
PAX5	chr9	36833272	37034476	64	9p13.2
PAX7	chr1	18957500	19075360	14	1p36.13
PAX8	chr2	113973574	114036498	20	2q13
PBX1	chr1	164524821	164854300	38	1q23.3
PBX2	chr6	32152510	32157963	13	6p21.32
PBX3	chr9	128508551	128729656	28	9q33.3
PBX4	chr19	19672524	19729462	9	19p13.11
PBXIP1	chr1	154916552	154928603	19	1q21.3
PCM1	chr8	17780349	17887453	58	8p22
PCNT	chr21	47744036	47865682	58	21q22.3
PCSK6	chr15	101844134	102030187	36	15q26.3
PCSK7	chr11	117075053	117103241	34	11q23.3
PDCD1LG2	chr9	5510545	5571282	8	9p24.1
PDCD5	chr19	33072096	33078322	6	19q13.11
PDE3A	chr12	20522179	20837315	25	12p12.2
PDE3B	chr11	14665269	14892350	24	11p15.2
PDE4A	chr19	10527449	10580305	26	19p13.2
PDE4B	chr1	66258197	66840259	50	1p31.3
PDE4D	chr5	58264865	59817947	108	5q11.2-5q12.1
PDE4DIP	chr1	144836157	145076186	91	1q21.1
PDE7B	chr6	136172834	136516712	26	6q23.3
PDGFB	chr22	39619364	39640756	13	22q13.1
PDGFRA	chr4	55095264	55164414	37	4q12
PDGFRB	chr5	149493400	149535423	35	5q32
PDGFRL	chr8	17433942	17501580	10	8p22
PEG10	chr7	94285637	94299007	6	7q21.3
PER1	chr17	8043809	8059678	26	17p13.1
PER2	chr2	239152679	239198743	26	2q37.3
PER3	chr1	7844380	7905237	29	1p36.23

PF4	chr4	74846794	74847841	3	4q13.3
PGAP3	chr17	37827376	37844310	13	17q12
PHF23	chr17	7138350	7142825	9	17p13.1
PHF7	chr3	52443510	52457657	20	3p21.1
PHLPP1	chr18	60382672	60647666	32	18q21.33
PHLPP2	chr16	71671739	71757715	29	16q22.2
PHOX2B	chr4	41746099	41750987	5	4p13
PIAS3	chr1	145575233	145586546	19	1q21.1
PIAS4	chr19	4007748	4039383	13	19p13.3
PICALM	chr11	85668727	85780924	38	11q14.2
PIK3C2A	chr11	17099277	17229530	43	11p15.1
PIK3CA	chr3	178865902	178957881	22	3q26.32
PIK3CB	chr3	138372860	138553780	39	3q22.3
PIK3CD	chr1	9711790	9789172	36	1p36.22
PIK3CG	chr7	106505723	106547590	17	7q22.3
PIK3R1	chr5	67511548	67597649	32	5q13.1
PIK3R2	chr19	18263928	18281343	18	19p13.11
PIK3R3	chr1	46505812	46642160	21	1p34.1
PIM1	chr6	37137979	37143202	9	6p21.2
PIN1	chr19	9945999	9960365	7	19p13.2
PITX2	chr4	111538579	111563279	11	4q25
PLA2G4A	chr1	186798085	186958113	26	1q31.1
PLAG1	chr8	57073463	57123883	10	8q12.1
PLAGL2	chr20	30780306	30795594	4	20q11.21
PLAT	chr8	42032236	42065242	26	8p11.21
PLAUR	chr19	44150271	44174502	8	19q13.31
PLCB1	chr20	8112824	8949003	69	20p12.3
PLCB2	chr15	40580100	40600174	38	15q15.1
PLCG1	chr20	39765600	39804361	37	20q12
PLEKHG2	chr19	39903225	39919054	27	19q13.2
PLK1	chr16	23690143	23701688	15	16p12.2
PLOD3	chr7	100849258	100861701	34	7q22.1
PLSCR1	chr3	146232967	146262651	24	3q24
PLXNB2	chr22	50713408	50746056	48	22q13.33
PMAIP1	chr18	57567180	57571538	3	18q21.32
PML	chr15	74287014	74339112	15	15q24.1
PMS1	chr2	190648811	190742355	29	2q32.2
PMS2	chr7	6012870	6048756	20	7p22.1
PNN	chr14	39644425	39652422	9	14q21.1
POU2AF1	chr11	111222977	111326355	26	11q23.1
POU2F1	chr1	167190120	167396582	37	1q24.1-1q24.2
POU4F1	chr13	79173227	79177695	2	13q31.1
POU5F1	chr6	31132114	31148508	12	6p21.33
PPARG	chr3	12328867	12475855	19	3p25.2
PPM1D	chr17	58677554	58742036	11	17q23.2
PPP2R4	chr9	131873229	131911225	27	9q34.11
PPP2R5A	chr1	212458782	212535200	22	1q32.3
PPP4C	chr16	30087311	30096698	9	16p11.2
PRAM1	chr19	8554941	8567522	15	19p13.2
PRAME	chr22	22890123	22901768	14	22q11.22

PRCC	chr1	156720402	156770607	14	1q23.1
PRDM1	chr6	106534195	106557814	14	6q21
PRDM16	chr1	2985732	3355185	37	1p36.32
PRDM2	chr1	14026693	14151560	25	1p36.21
PRF1	chr10	72357104	72362531	5	10q22.1
PRKACA	chr19	14202509	14228574	16	19p13.12
PRKAR1A	chr17	66508110	66528908	14	17q24.2
PRKCA	chr17	64298944	64801114	33	17q24.2
PRKCB	chr16	23847322	24231932	41	16p12.2-16p12.1
PRKCE	chr2	45878484	46415129	54	2p21
PRKCI	chr3	169940153	170023769	26	3q26.2
PRKD2	chr19	47177574	47220384	20	19q13.32
PRKG2	chr4	82009837	82136218	27	4q21.21
PROK1	chr1	110993822	110999976	5	1p13.3
PROM1	chr4	15964699	16086001	60	4p15.32
PRRX1	chr1	170632323	170708560	14	1q24.2
PRRX2	chr9	132427920	132484953	6	9q34.11
PRTN3	chr19	840985	848180	6	19p13.3
PSIP1	chr9	15464064	15511017	25	9p22.3
PSMD6	chr3	63996225	64009658	15	3p14.1
PSMD7	chr16	74330673	74344205	12	16q23.1
PTAFR	chr1	28473677	28520447	6	1p35.3
PTCH1	chr9	98205262	98279339	40	9q22.32
PTCRA	chr6	42883727	42893898	6	6p21.1
PTEN	chr10	89622870	89731687	16	10q23.31
PTGS1	chr9	125132824	125157982	16	9q33.2
PTGS2	chr1	186640923	186649555	13	1q31.1
PTHLH	chr12	28111017	28125638	13	12p11.22
PTK2	chr8	141667999	142012315	97	8q24.3
PTPN1	chr20	49126891	49201299	12	20q13.13
PTPN11	chr12	112856155	112947717	20	12q24.13
PTPN13	chr4	87515468	87736324	63	4q21.3
PTPN6	chr12	7055631	7070479	29	12p13.31
PTPN7	chr1	202116141	202130716	16	1q32.1
PTPRG	chr3	61547243	62283288	61	3p14.2
PTPRO	chr12	15475331	15750333	42	12p12.3
PURA	chr5	139487362	139496321	5	5q31.2
PURB	chr7	44915896	44924960	1	7p13
PVT1	chr8	128806779	129113499	39	8q24.21
PYCARD	chr16	31212807	31214313	4	16p11.2
RAB36	chr22	23487513	23506537	21	22q11.22-22q11.23
RAB4B	chr19	41277553	41302847	14	19q13.2
RAB7A	chr3	128444965	128533639	17	3q21.3
RABEP1	chr17	5185558	5289129	23	17p13.2
RAC1	chr7	6414154	6443608	16	7p22.1
RAC2	chr22	37621301	37640488	14	22q13.1
RAD51	chr15	40986972	41024356	17	15q15.1
RAD51L1	chr14	68286496	69196935	56	14q24.1
RAD54B	chr8	95384188	95487337	30	8q22.1
RAD54L	chr1	46713360	46744145	30	1p34.1

RAF1	chr3	12625100	12705725	30	3p25.2
RALA	chr7	39663082	39747723	10	7p14.1
RALB	chr2	120997640	121052285	15	2q14.2
RALGDS	chr9	135973107	136039301	41	9q34.2
RAN	chr12	131356424	131362223	14	12q24.33
RANBP17	chr5	170288874	170727019	64	5q35.1
RANBP3	chr19	5916154	5978320	25	19p13.3
RAP1GAP	chr1	21922708	21995856	40	1p36.12
RAP1GDS1	chr4	99182535	99365012	26	4q23
RAPGEF1	chr9	134452157	134615461	40	9q34.13
RAPGEF3	chr12	48128455	48164823	38	12q13.11
RARA	chr17	38465436	38513895	18	17q21.2
RARB	chr3	25215823	25639423	30	3p24.2
RARG	chr12	53604354	53626036	12	12q13.13
RARRES1	chr3	158414681	158450485	10	3q25.32
RASGRP4	chr19	38899698	38916945	18	19q13.2
RASL11B	chr4	53728457	53733000	7	4q12
RASSF1	chr3	50367219	50378411	12	3p21.31
RASSF2	chr20	4760669	4804291	18	20p13
RASSF4	chr10	45454855	45490172	24	10q11.21
RASSF6	chr4	74437267	74486348	21	4q13.3
RB1	chr13	48877883	49056122	119	13q14.2
RBBP7	chrX	16857406	16888537	39	23p22.2
RBBP8	chr18	20513290	20606449	23	18q11.2
RBL2	chr16	53468361	53525560	29	16q12.2
RBM15	chr1	110881128	110889299	3	1p13.3
RBM6	chr3	49977440	50137478	45	3p21.31
RCBTB1	chr13	50106082	50159719	19	13q14.2
RCSD1	chr1	167599330	167675486	17	1q24.2
RD3	chr1	211649864	211666259	5	1q32.3
RECQL4	chr8	145736671	145743229	28	8q24.3
REL	chr2	61108656	61150645	12	2p16.1
RELA	chr11	65421067	65430565	26	11q13.1
REN	chr1	204123944	204135465	13	1q32.1
REPS1	chr6	139224630	139309398	42	6q24.1
RET	chr10	43572475	43625799	23	10q11.21
RFC1	chr4	39289076	39367995	42	4p14
RGS16	chr1	182567758	182573543	5	1q25.3
RGS2	chr1	192778169	192781403	7	1q31.2
RHOA	chr3	49396578	49450431	17	3p21.31
RHOH	chr4	40192673	40246281	15	4p14
RMI1	chr9	86595626	86618985	4	9q21.32
RNASEH2B	chr13	51483814	51544592	17	13q14.3
RNASEL	chr1	182542769	182558391	11	1q25.3
RNF213	chr17	78234665	78370086	75	17q25.3
ROBO1	chr3	78646390	79816965	85	3p12.3-3p12.2
ROR1	chr1	64239693	64647181	27	1p31.3
ROR2	chr9	94325373	94712444	31	9q22.31
ROS1	chr6	117609463	117747018	49	6q22.1
RP11-510H23.1	chr6	125230239	125284185	8	6q22.31

RPA2	chr1	28218035	28241257	14	1p35.3
RPL22	chr1	6241329	6269449	14	1p36.31
RPL22L1	chr3	170582664	170588272	7	3q26.2
RPL34	chr4	109541722	109551568	11	4q25
RPL6	chr12	112842997	112847443	8	12q24.13
RPN1	chr3	128338817	128399918	23	3q21.3
RPS14	chr5	149822753	149829319	12	5q33.1
RPS6KB1	chr17	57970447	58027925	23	17q23.1
RTDR1	chr22	23401593	23487208	17	22q11.22
RTEL1	chr20	62289163	62330051	56	20q13.33
RTN4	chr2	55199325	55339757	29	2p16.1
RUNDC2A	chr16	12070602	12147141	10	16p13.13
RUNX1	chr21	36160098	37357047	167	21q22.12
RUNX1T1	chr8	92967203	93115514	44	8q21.3
RUNX2	chr6	45295894	45518818	21	6p21.1
RUNX3	chr1	25226002	25291612	15	1p36.11
RUVBL1	chr3	127783625	127872757	20	3q21.3
RXRA	chr9	137208944	137332431	20	9q34.2
S100A4	chr1	153516089	153522612	9	1q21.3
S1PR5	chr19	10623419	10628668	4	19p13.2
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SATB1	chr3	18386864	18487080	28	3p24.3
SBDS	chr7	66452664	66460635	6	7q11.21
SBF1	chr22	50885184	50913464	48	22q13.33
SCAF1	chr19	50145382	50161905	14	19q13.33
SDC1	chr2	20400558	20425194	13	2p24.1
SDHB	chr1	17345217	17380665	16	1p36.13
SDHC	chr1	161284047	161332984	12	1q23.3
SDHD	chr11	111957497	111990353	8	11q23.1
SELE	chr1	169691781	169703220	15	1q24.2
SELL	chr1	169659808	169680839	13	1q24.2
SEMA4D	chr9	91975702	92113045	41	9q22.2
SENP1	chr12	48436681	48499641	21	12q13.11
SEPT10	chr2	110300380	110371783	25	2q13
SEPT2	chr2	242254515	242293442	33	2q37.3
SEPT4	chr17	56597616	56618062	19	17q22
SEPT5	chr22	19701987	19712295	24	22q11.21
SEPT6	chrX	118749687	118829585	45	23q24
SEPT9	chr17	75277492	75496674	30	17q25.2-17q25.3
SERINC5	chr5	79407050	79551898	25	5q14.1
SERPINB9	chr6	2887500	2903514	9	6p25.2
SERPINE1	chr7	100770370	100782547	12	7q22.1
SET	chr9	131445703	131458679	18	9q34.11
SETBP1	chr18	42260138	42648475	19	18q12.3
SETDB2	chr13	50018429	50069138	20	13q14.2
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SFRP1	chr8	41119481	41167016	9	8p11.21
SFRP4	chr7	37945543	38065297	14	7p14.1
SFRP5	chr10	99526508	99531709	3	10q24.2

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SH2B2	chr7	101928405	101962178	13	7q22.1
SH2B3	chr12	111843752	111889426	9	12q24.12
SH2D1A	chrX	123480194	123507005	15	23q25
SH3BP2	chr4	2794750	2842825	36	4p16.3
SH3D19	chr4	152041431	152149182	30	4q31.3
SH3GL1	chr19	4360370	4400522	11	19p13.3
SHC1	chr1	154934774	154946871	25	1q21.3
SHC2	chr19	416587	460996	16	19p13.3
SHC3	chr9	91628060	91793682	22	9q22.1
SHC4	chr15	49115932	49255641	17	15q21.1
SHH	chr7	155592680	155604967	9	7q36.3
SIAH2	chr3	150458914	150481264	5	3q25.1
SIGLEC7	chr19	51645558	51656783	7	19q13.41
SIGLEC9	chr19	51628165	51639520	8	19q13.41
SIL1	chr5	138282409	138629246	40	5q31.2
SIPA1	chr11	65405568	65418401	27	11q13.1
SKP2	chr5	36152091	36184421	14	5p13.2
SLC19A1	chr21	46913486	46964316	46	21q22.3
SLC20A1	chr2	113403434	113421404	22	2q13
SLC20A2	chr8	42273993	42397069	31	8p11.21
SLC24A3	chr20	19193290	19703545	38	20p11.23
SLC28A1	chr15	85427885	85518876	25	15q25.3
SLC29A2	chr11	66129992	66139685	15	11q13.2
SLC39A6	chr18	33688495	33709357	12	18q12.2
SLC45A3	chr1	205626979	205649587	6	1q32.1
SLC46A1	chr17	26721661	26733228	6	17q11.2
SLC5A8	chr12	101549994	101604016	17	12q23.1-12q23.2
SLC7A7	chr14	23242434	23299029	17	14q11.2
SLCO1B3	chr12	20963636	21243040	26	12p12.2
SMAD2	chr18	45357922	45457515	17	18q21.1
SMAD3	chr15	67358183	67487533	20	15q22.33
SMAD4	chr18	48494410	48611415	20	18q21.2
SMAD5	chr5	135468534	135524435	23	5q31.1
SMAP1	chr6	71377479	71571718	19	6q13
SMARCB1	chr22	24129150	24176703	15	22q11.23
SMC2	chr9	106856541	106903698	31	9q31.1
SMC4	chr3	160117062	160152750	50	3q25.33
SMO	chr7	128828713	128853386	19	7q32.1
SNAP91	chr6	84262599	84419410	52	6q14.2
SNHG5	chr6	86386725	86388451	9	6q14.3
SOCS1	chr16	11348262	11350036	2	16p13.13
SOCS2	chr12	93963598	93969978	6	12q22
SOCS3	chr17	76352864	76356158	2	17q25.3
SOCS6	chr18	67956168	67997436	3	18q22.2
SOD1	chr21	33031935	33041244	10	21q22.11
SOD2	chr6	160100096	160183561	22	6q25.3
SORBS2	chr4	186506598	186877806	76	4q35.1
SOS1	chr2	39208537	39351486	38	2p22.1
SOS2	chr14	50583847	50698091	24	14q21.3

SOX10	chr22	38366693	38383429	13	22q13.1
SOX12	chr20	306207	310865	2	20p13
SOX4	chr6	21593972	21598847	2	6p22.3
SOX6	chr11	15987995	16761138	64	11p15.2-11p15.1
SP1	chr12	53773979	53810221	9	12q13.13
SP100	chr2	231280657	231408805	47	2q37.1
SP110	chr2	231032009	231090444	36	2q37.1
SP140	chr2	231090444	231223762	45	2q37.1
SPA17	chr11	124543694	124567414	9	11q24.2
SPANXA2	chrX	140677562	140678899	8	23q27.2
SPANXB1	chrX	140096761	140097876	0	23q27.1
SPANXB2	chrX	140084756	140085871	4	23q27.1
SPANXC	chrX	140335596	140336629	8	23q27.2
SPANXD	chrX	140785568	140786896	2	23q27.2
SPECC1	chr17	19912614	20222339	30	17p11.2
SPI1	chr11	47376411	47400127	10	11p11.2
SPIB	chr19	50922195	50932246	6	19q13.33
SPOCK3	chr4	167654535	168155947	39	4q32.3
SPTBN1	chr2	54683422	54896812	47	2p16.2
SRC	chr20	35973088	36034453	24	20q11.23
SRCAP	chr16	30709530	30762702	45	16p11.2
SRGAP3	chr3	9022275	9404737	49	3p25.3
SRI	chr7	87834433	87856308	18	7q21.12
SRPK2	chr7	104751151	105039755	52	7q22.3
SRSF3	chr6	36562145	36571209	8	6p21.31
SRY	chrY	2654896	2655740	5	24p11.31
SS18	chr18	23596219	23671164	20	18q11.2
SS18L1	chr20	60718822	60757540	20	20q13.33
SSBP2	chr5	80708840	81047616	36	5q14.1
SSX1	chrX	48114752	48126879	16	23p11.23
SSX2	chrX	52725946	52736239	17	23p11.22
SSX4	chrX	48242863	48252785	16	23p11.23
ST6GAL1	chr3	186648274	186796341	37	3q27.3
STAT1	chr2	191829084	191885686	42	2q32.2
STAT3	chr17	40465342	40540449	33	17q21.2
STAT5A	chr17	40439565	40463961	29	17q21.2
STAT5B	chr17	40351186	40428725	23	17q21.2
STC1	chr8	23699428	23712320	8	8p21.2
STIL	chr1	47715811	47779819	27	1p33
STK11	chr19	1205798	1228434	13	19p13.3
STMN1	chr1	26210672	26233482	17	1p36.11
STRN	chr2	37070783	37193615	24	2p22.2
STRN4	chr19	47222770	47250251	21	19q13.32
STYK1	chr12	10771538	10826917	17	12p13.2
SUFU	chr10	104263744	104393292	18	10q24.32
SUMO1	chr2	203070903	203103331	12	2q33.1
SUZ12	chr17	30264056	30328064	15	17q11.2
SYK	chr9	93564012	93660831	22	9q22.2
SYNJ2	chr6	158402888	158520208	36	6q25.3
TAC1	chr7	97361220	97369784	10	7q21.3

TACC3	chr4	1723227	1746898	25	4p16.3
TAF15	chr17	34136488	34174237	21	17q12
TAL1	chr1	47681963	47697892	11	1p33
TAL2	chr9	108424738	108425367	1	9q31.2
TASP1	chr20	13246709	13619587	34	20p12.1
TAX1BP1	chr7	27778950	27880938	37	7p15.2
TAX1BP3	chr17	3566196	3571976	4	17p13.2
TBC1D3	chr17	36337711	36358166	6	17q12
TBL1XR1	chr3	176737143	176915261	36	3q26.32
TBX21	chr17	45810610	45823485	6	17q21.32
TCEA1	chr8	54879112	54935089	25	8q11.23
TCF12	chr15	57210323	57582051	41	15q21.3
TCF3	chr19	1609293	1652326	24	19p13.3
TCF7L2	chr10	114710009	114927437	36	10q25.2-10q25.3
TCL1A	chr14	96176305	96180533	5	14q32.13
TCL1B	chr14	96152754	96158967	4	14q32.13
TCL6	chr14	96116835	96158965	25	14q32.13
TCTA	chr3	49449639	49453908	8	3p21.31
TEC	chr4	48137800	48271881	27	4p12-4p11
TEF	chr22	41763337	41795330	9	22q13.2
TEK	chr9	27109139	27230173	32	9p21.2
TEP1	chr14	20833826	20881580	59	14q11.2
TERF1	chr8	73921099	73960357	18	8q21.11
TERF2	chr16	69389464	69419859	10	16q22.1
TERT	chr5	1253262	1295184	19	5p15.33
TET1	chr10	70320413	70454239	19	10q21.3
TET2	chr4	106067032	106200973	63	4q24
TET3	chr2	74229840	74329698	16	2p13.1
TFE3	chrX	48886242	48901012	32	23p11.23
TFEB	chr6	41651716	41703997	29	6p21.1
TFG	chr3	100428205	100467810	16	3q12.2
TFPT	chr19	54610320	54619055	8	19q13.42
TFRC	chr3	195754054	195809060	30	3q29
TGFB1	chr19	41836813	41859831	9	19q13.2
TGFBR2	chr3	30647994	30735634	17	3p24.1
TGM2	chr20	36756863	36794980	21	20q11.23
THAP1	chr8	42691817	42698468	7	8p11.21
THBS1	chr15	39873127	39891119	29	15q14
THPO	chr3	184089723	184095932	11	3q27.1
THRA	chr17	38218446	38250120	15	17q21.1
THRAP3	chr1	36690017	36770958	22	1p34.3
THRB	chr3	24158651	24536773	37	3p24.2
TIAM1	chr21	32361860	32932290	60	21q22.11
TIAM2	chr6	155153831	155578857	63	6q25.2-6q25.3
TIMP1	chrX	47441712	47446188	18	23p11.23
TIRAP	chr11	126152960	126168740	14	11q24.2
TK1	chr17	76170160	76183314	8	17q25.3
TLR3	chr4	186990306	187006255	10	4q35.1
TLR9	chr3	52255096	52260179	2	3p21.2
TLX1	chr10	102890262	102897545	8	10q24.31

TLX2	chr2	74740590	74744769	7	2p13.1
TLX3	chr5	170736288	170739138	3	5q35.1
TMEM183A	chr1	202976514	202993976	16	1q32.1
TMPRSS2	chr21	42836478	42903043	24	21q22.3
TNF	chr6	31543344	31546113	5	6p21.33
TNFAIP2	chr14	103592664	103603776	14	14q32.32
TNFAIP3	chr6	138188351	138204449	20	6q23.3
TNFRSF10A	chr8	23047965	23082639	14	8p21.3
TNFRSF10B	chr8	22877646	22926692	16	8p21.3
TNFRSF10C	chr8	22941868	22990110	14	8p21.3
TNFRSF10D	chr8	22993101	23021543	10	8p21.3
TNFRSF11A	chr18	59992520	60054899	13	18q21.33
TNFRSF11B	chr8	119935796	119964439	9	8q24.12
TNFRSF13B	chr17	16832849	16875402	13	17p11.2
TNFRSF17	chr16	12058964	12061925	4	16p13.13
TNFRSF1A	chr12	6437923	6451280	20	12p13.31
TNFRSF6B	chr20	62328021	62330037	6	20q13.33
TNFRSF8	chr1	12123434	12204264	19	1p36.22
TNFSF10	chr3	172223298	172241297	10	3q26.31
TNFSF11	chr13	43136872	43182149	9	13q14.11
TNFSF13	chr17	7461609	7464925	10	17p13.1
TNFSF13B	chr13	108903588	108959385	10	13q33.3
TNFSF8	chr9	117656003	117692697	5	9q32
TNFSF9	chr19	6531010	6535939	3	19p13.3
TNIP2	chr4	2743375	2758103	11	4p16.3
TNP1	chr2	217724181	217724787	2	2q35
TOB1	chr17	48939584	48945339	7	17q21.33
TOP1	chr20	39657458	39753127	24	20q12
TOP2A	chr17	38544768	38574408	48	17q21.2
TOP2B	chr3	25639475	25706398	41	3p24.2
TOP3A	chr17	18174742	18218288	29	17p11.2
TP53	chr17	7565097	7590856	21	17p13.1
TP53BP1	chr15	43699407	43802926	47	15q15.3
TP63	chr3	189349205	189615068	28	3q28
TP73	chr1	3569084	3652765	18	1p36.32
TPD52	chr8	80870571	81143467	40	8q21.13
TPD52L2	chr20	62496596	62522898	13	20q13.33
TPM3	chr1	154127784	154167124	29	1q21.3
TPM4	chr19	16178317	16213813	15	19p13.12
TPMT	chr6	18128542	18155305	10	6p22.3
TPR	chr1	186282954	186344825	61	1q31.1
TPT1	chr13	45911008	45915505	19	13q14.13
TRAF3	chr14	103243816	103372628	19	14q32.32
TRAP1	chr16	3708038	3767565	25	16p13.3
TRGC1	chr7	38297480	38305279	3	7p14.1
TRGC2	chr7	38279181	38289173	7	7p14.1
TRGV7	chr7	38374642	38375115	3	7p14.1
TRGV9	chr7	38356618	38358462	2	7p14.1
TRIB1	chr8	126442563	126450647	8	8q24.13
TRIB2	chr2	12857015	12882860	11	2p24.3

TRIM13	chr13	50570024	50594617	11	13q14.2
TRIM24	chr7	138144953	138274738	34	7q33-7q34
TRIM27	chr6	28870779	28891766	16	6p22.1
TRIM33	chr1	114935399	115053781	32	1p13.2
TRIM5	chr11	5684425	5959849	40	11p15.4
TRIP11	chr14	92434243	92506403	25	14q32.12
TRPS1	chr8	116420724	116821899	34	8q23.3
TRPV1	chr17	3468743	3500392	20	17p13.2
TRPV5	chr7	142605267	142630905	19	7q34
TRPV6	chr7	142568956	142583507	21	7q34
TSC1	chr9	135766735	135820020	34	9q34.13
TSC2	chr16	2097466	2138721	52	16p13.3
TSGA10	chr2	99613724	99771427	40	2q11.2
TSHR	chr14	81421709	81612646	17	14q31.1
TSPAN7	chrX	38420623	38548169	37	23p11.4
TSPY10	chrY	9365489	9368291	0	24p11.2
TSPY2	chrY	6114264	6117060	26	24p11.2
TSPY3	chrY	9215731	9307357	0	24p11.2
TTC12	chr11	113185251	113254266	39	11q23.2
TTL	chr2	113239731	113290227	11	2q13
TWIST2	chr2	239756673	239795893	2	2q37.3
TXN	chr9	113006091	113018920	6	9q31.3
TXNIP	chr1	145438469	145442635	10	1q21.1
TYMS	chr18	657604	673578	8	18p11.32
TYRO3	chr15	41851220	41871536	21	15q15.1
TYROBP	chr19	36395312	36399211	7	19q13.12
UBA7	chr3	49842640	49851379	28	3p21.31
UBASH3B	chr11	122526383	122685181	24	11q24.1
UCK2	chr1	165796768	165880855	16	1q24.1
UGCG	chr9	114659046	114697649	13	9q31.3
UGT1A1	chr2	234668894	234681945	6	2q37.1
UHMK1	chr1	162467041	162499419	12	1q23.3
ULBP2	chr6	150263136	150270371	5	6q25.1
USF2	chr19	35759896	35770718	10	19q13.12
USP16	chr21	30396950	30426809	26	21q21.3
USP6	chr17	5019733	5078329	43	17p13.2
USP7	chr16	8985951	9057341	39	16p13.2
VAC14	chr16	70721342	70835071	25	16q22.1-16q22.2
VAV1	chr19	6772722	6857371	31	19p13.3
VAV2	chr9	136627016	136857726	44	9q34.2
VCAN	chr5	82767284	82878122	24	5q14.2-5q14.3
VCP	chr9	35056061	35073246	25	9p13.3
VDR	chr12	48235322	48298814	13	12q13.11
VEGFA	chr6	43737921	43754224	23	6p21.1
VEGFC	chr4	177604689	177713881	12	4q34.3
VHL	chr3	10182692	10193904	6	3p25.3
VRK1	chr14	97263684	97347950	15	14q32.2
WAS	chrX	48534985	48549818	32	23p11.23
WASF1	chr6	110421022	110501207	16	6q21
WHSC1	chr4	1873151	1983934	44	4p16.3

WHSC1L1	chr8	38132544	38239790	39	8p11.23
WIF1	chr12	65444406	65515346	17	12q14.3
WNT1	chr12	49372236	49376396	6	12q13.12
WNT10A	chr2	219745085	219764303	7	2q35
WNT16	chr7	120965421	120981158	6	7q31.31
WNT2	chr7	116916685	116963343	7	7q31.2
WNT5A	chr3	55499743	55523973	17	3p14.3
WRN	chr8	30891317	31031285	38	8p12
WT1	chr11	32409321	32457176	74	11p13
WT1-AS	chr11	32457064	32480315	17	11p13
WWOX	chr16	78133551	79246031	53	16q23.1-16q23.2
XBP1	chr22	29190543	29196585	9	22q12.1
XIAP	chrX	122993574	123047829	31	23q25
XIST	chrX	73040486	73072588	27	23q13.2
XPA	chr9	100437191	100459639	11	9q22.33
XPC	chr3	14186647	14220283	25	3p25.1
XRCC1	chr19	44047464	44079730	22	19q13.31
XRCC3	chr14	104163955	104181823	10	14q32.33
YAP1	chr11	101981192	102104154	18	11q22.1-11q22.2
YBX1	chr1	43148098	43168023	18	1p34.2
YES1	chr18	721588	812327	16	18p11.32
YTHDF2	chr1	29063133	29096287	14	1p35.3
YWHAH	chr22	32340447	32353590	8	22q12.3
ZAP70	chr2	98330023	98356325	21	2q11.2
ZBTB1	chr14	64971292	65000408	4	14q23.3
ZBTB16	chr11	113930315	114121398	20	11q23.2
ZFP36L1	chr14	69254375	69261453	5	14q24.1
ZFPM2	chr8	106330920	106816760	31	8q23.1
ZMIZ1	chr10	80828792	81076285	40	10q22.3
ZMYM2	chr13	20532810	20665968	39	13q12.11
ZNF217	chr20	52183604	52226446	14	20q13.2
ZNF296	chr19	45574759	45579845	5	19q13.32
ZNF331	chr19	54024235	54083523	25	19q13.42
ZNF384	chr12	6775643	6798738	19	12p13.31
ZNF451	chr6	56951642	57035105	29	6p12.1-6p11.2
ZNF521	chr18	22641888	22932214	26	18q11.2
ZNF687	chr1	151254094	151264381	12	1q21.3

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