

Table S1. Summary of reported cases with copy number and sequence variations in COL4A1

Case	Variation Name	Gene(s)	Class	Location of SNV	Clinical condition(s)	Chr	Coordinate (GRCh38)	VariationID	AlleleID(s)
1	GRCh37/hg19 13q11-34(chr13:19031237-115107157)x3	PARP4 ALOX5 ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBT2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT1 GPR183 EDNRB EFNB2 ELF1 ERCC5 ESDF7 F10 FGF9 FGF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18 MLNR GTF2F2 GTF3 AHMGB1 HTR2A ING1 PDX1 KPN3 PPOS LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPEP NEK3 PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A IRB1 RFC3 RFXPAP RNFB RPL21 ATXN8OS SCG3 SLC7A1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TPP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 IFT88 STK24 CUL4A TNFSF11 JRS2 SCEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGFE7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KLT TM9SF2 ITM2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHPL6 TRIM13 USPL1 MRPS31 SPRY2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 P1BF1 OLFML4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD5 SOX21 WBP4 AKAP11 KLF12 EXOSC8 IRAS3 FNDC3A DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWAS8 ZC3H13 PART1 LRCH1 ATP11A MCF2L1 MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMPU UFM1 ATP8A2 JIL17D NDFIP2 MPHOS PH8 BIVM SOHLH2 TMC03 ENOX1 ARGLU1 DCUN1D2 RCBTB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUT20H ANKRD10 RAB20 NAXD UGGT2 PCID2 CENPJ THSD1 RNFI7 CYSLTR2 SPRYD7 COG6 KLHL1 IRBM26 XPO4 PCDH20 UPF3A MRPL57 SMM2 POGLUT2 CARS2 IRNF219 NAA16 RNASEH2B DHRS12 GRTP1 BORAIR UBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMT4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STARD13 N4BP2L1 TEX30 TPT2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR20A SPACA7 IRNF113B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CDC122 GPR180 TOML3 COMMD6 CLYBL METTL21C AMER2 USP12 MTIF3 GSX1 ERIC6B SPERT DLEU7 FAM124A LRRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN X2 SLC25A30 ZDHC20 PAN3 NALCN HS6ST3 DAOA DAOA-AS1 LINC00567 CHAMP1 IAH3 KCNRG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTNF9B SHISA2 NHLRC3 SERP2 SERTM1 ATP11A NUN MIR15A MIR16-1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZARL1 SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E LMO7 DNACOD1 LINC00543 LOC100288208 ANKRD10-IT1 LINC00402 CCDC169-SOHLH2 BIVM-ERCC5 LINC00558 LINC00565 SLC25A30-AS1	CNV <sup>1</sup>		not specified			614007	605343
2	GRCh37/hg19 13q11-34(chr13:19058717-115103529)x3	PARP4 ALOX5 ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBT2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT1 GPR183 EDNRB EFNB2 ELF1 ERCC5 ESDF7 F10 FGF9 FGF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18 MLNR GTF2F2 GTF3 AHMGB1 HTR2A ING1 PDX1 KPN3 PPOS LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPEP NEK3 PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A IRB1 RFC3 RFXPAP RNFB RPL21 ATXN8OS SCG3 SLC7A1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TPP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 IFT88 STK24 CUL4A TNFSF11 JRS2 SCEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGFE7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KLT TM9SF2 ITM2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHPL6 TRIM13 USPL1 MRPS31 SPRY2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 P1BF1 OLFML4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD5 SOX21 WBP4 AKAP11 KLF12 EXOSC8 IRAS3 FNDC3A DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWAS8 ZC3H13 PART1 LRCH1 ATP11A MCF2L1 MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMPU UFM1 ATP8A2 JIL17D NDFIP2 MPHOS PH8 BIVM SOHLH2 TMC03 ENOX1 ARGLU1 DCUN1D2 RCBTB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUT20H ANKRD10 RAB20 NAXD UGGT2 PCID2 CENPJ THSD1 RNFI7 CYSLTR2 SPRYD7 COG6 KLHL1 IRBM26 XPO4 PCDH20 UPF3A MRPL57 SMM2 POGLUT2 CARS2 IRNF219 NAA16 RNASEH2B DHRS12 GRTP1 BORAIR UBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMT4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STARD13 N4BP2L1 TEX30 TPT2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR20A SPACA7 IRNF113B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CDC122 GPR180 TOML3 COMMD6 CLYBL METTL21C AMER2 USP12 MTIF3 GSX1 ERIC6B SPERT DLEU7 FAM124A LRRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN X2 SLC25A30 ZDHC20 PAN3 NALCN HS6ST3 DAOA DAOA-AS1 LINC00567 CHAMP1 IAH3 KCNRG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTNF9B SHISA2 NHLRC3 SERP2 SERTM1 ATP11A NUN MIR15A MIR16-1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZARL1 SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E LMO7 DNACOD1 LINC00543 LOC100288208 ANKRD10-IT1 LINC00402 CCDC169-SOHLH2 BIVM-ERCC5 LINC00558 LINC00565 SLC25A30-AS1	CNV		not specified			601479	592815

3	GRCh37/hg19 13q11-34(chr13:19436286-115107733)x3	<p>PARP4 ALOX5AP ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBTB2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT  CNV</p> <p>GPR183 EDNRB EFNB2 ELF1 ERCC5 ESDF 7F10 GF9F GF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18 MLNR GTF2F2 GTF3A HMGGB1 HTR2A ING1 PDX1 KPN3 IPO5 LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPE NEK3 PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A RB1 RFC3 RFXPAP RFNF6 RPL21 ATXN8OS SGCG SLC7A1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 JFT88 STK24 CUL4A TNFSF11 IRS2 SCEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGFE7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KL TM9SF2 ITM2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHFPL6 TRIM13 USPL1 MRPS31 SPRY2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 PBBF1 OLFML4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD5 SOX21 WBP4 AKAP11 KLF12 EXOSC8 RAS3 FNDCA3 DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWA8 ZC3H13 SPARTL RCH1 ATP11A MCFC2L MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMP UFM1 ATP8A2 IL17D NDFIP2 MPHOSPH8 BIVM SOHLH2 TMC03 ENOX1 ARGLU1 DCUN1D2 RCB TB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUP20H ANKRD10 RAB20 NAXD UGGT2 PCID2 CENPJ THSD1 RNFI7 CYSLTR2 SPRYD7 COG6 KLHL1 RBM26 XPO4 PCDH20 UPF3A MRPL57 SMM2 POGLUT2 CAR52 RNFI19 NAA16 RNASEH2B DHR512 GRTP1 BORA RUBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMT4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STAR13 N4BP2L1 TEX30 TPE2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR20A SPACA7 RNFI13B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CCDC122 GPR180 SOML3 COMMD6 CLYBL METTL2 C AMER2 USP12 MTIF3 GSX1 ERIC6B SPERT DLEU7 FAM124A LRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN X2 SLC25A30 ZDHC20 PAN3 NALCN HS6T3 DAOA DAOA-AS1 LINC00567 CHAMP1 SLAH3 KCNRG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTNF9B SHISA2 NHLRC3 SERP2 SERM1 ATP11A AUN MIR15A MIR16-1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZARL1 SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E L MODN ACOD1 LINC00543 LOC100288208 ANKRD10-IT1 LINC00402 CCDC169-SOHLH2 BIVM-ERC5 LINC00558 LINC00565 SLC25A30-AS1</p>	not specified	397465	384358
4	GRCh37/hg19 13q11-34(chr13:19436287-115107733)	<p>PARP4 ALOX5AP ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBTB2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT  CNV</p> <p>GPR183 EDNRB EFNB2 ELF1 ERCC5 ESDF 7F10 GF9F GF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18 MLNR GTF2F2 GTF3A HMGGB1 HTR2A ING1 PDX1 KPN3 IPO5 LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPE NEK3 PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A RB1 RFC3 RFXPAP RFNF6 RPL21 ATXN8OS SGCG SLC7A1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 JFT88 STK24 CUL4A TNFSF11 IRS2 SCEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGFE7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KL TM9SF2 ITM2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHFPL6 TRIM13 USPL1 MRPS31 SPRY2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 PBBF1 OLFML4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD5 SOX21 WBP4 AKAP11 KLF12 EXOSC8 RAS3 FNDCA3 DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWA8 ZC3H13 SPARTL RCH1 ATP11A MCFC2L MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMP UFM1 ATP8A2 IL17D NDFIP2 MPHOSPH8 BIVM SOHLH2 TMC03 ENOX1 ARGLU1 DCUN1D2 RCB TB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUP20H ANKRD10 RAB20 NAXD UGGT2 PCID2 CENPJ THSD1 RNFI7 CYSLTR2 SPRYD7 COG6 KLHL1 RBM26 XPO4 PCDH20 UPF3A MRPL57 SMM2 POGLUT2 CAR52 RNFI19 NAA16 RNASEH2B DHR512 GRTP1 BORA RUBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMT4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STAR13 N4BP2L1 TEX30 TPE2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR20A SPACA7 RNFI13B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CCDC122 GPR180 SOML3 COMMD6 CLYBL METTL2 C AMER2 USP12 MTIF3 GSX1 ERIC6B SPERT DLEU7 FAM124A LRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN X2 SLC25A30 ZDHC20 PAN3 NALCN HS6T3 DAOA DAOA-AS1 LINC00567 CHAMP1 SLAH3 KCNRG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTNF9B SHISA2 NHLRC3 SERP2 SERM1 ATP11A AUN MIR15A MIR16-1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZARL1 SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E L MODN ACOD1 LINC00543 LOC100288208 ANKRD10-IT1 LINC00402 CCDC169-SOHLH2 BIVM-ERC5 LINC00558 LINC00565 SLC25A30-AS1</p>	not specified	441765	435427

5	GRCh37/hg19 13q11-34(chr13:19436287-115107733)x3	<p>PARP4 ALOX5AP ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBTB2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT  CNV  GPR183 EDNBR EFNB2 ELF1 ERCC5 ESDF 7F10 FG9 FGF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18   MLNR GTF2F2 GTF3A HMGGB1 HTR2A ING1 PDX1 KPN3 IP05 LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPE NEK3    PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A RB1 RFC3 RFXPAP RFN6 RPL21 ATXN8OS SGCG SLC7A1   SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 JFT88 STK24 CUL4A TNFSF11 IRS2 S   CEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGEF7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KL TM9SF2 IT   M2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHFPL6 TRIM13 USPL1 MRPS31 SPR   Y2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 P1BF1 OLF4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD SOX   21 WBP4 AKAP11 KLF12 EXOSC8 RAS3 FNDCA3 DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWAS ZC3H13 SPARTL RCH1 A   TP11A MC2L2 MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC   MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMP UFM1 ATP8A2 IL17D NDFIP2 MPHOSPH8 BIVM SOHLH2 T   MCO3 ENOX1 ARGLU1 DCUN1D2 RCB TB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUP20H ANKRD10 RAB20 NAXD UG   GT2 PCID2 CENPJ THSD1 RNFI7 CYS TR2 SPRYD7 COG6 KLHL1 RBM26 XPO4 PCDH20 UPF3A MRPL57 SBMIM2 POGL   UT2 CAR S2 RNFI19 NAA16 RNASEH2B DHR512 GRTP1 BORA RUBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 C   CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMTC4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STAR D13 N4   BP2L1 TEX30 TPE2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR2   0A SPACA7 RNFI13B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CCDC122 GPR180 SOML3 COMMD6 CLYBL MET   TL2 C AMER2 USP12 MTIF3 GSX1 ERIC H6B SPERT DLEU7 FAM124A LRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN   X2 SLC25A30 ZDHC20 PAN3 NALCN HS6T3 DAOA DAOA-  AS1 LINC00567 CHAMP1 SLAH3 KCNKG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTN   F9B SHS A2 NHLRC3 SERP2 SER TM1 ATP11AUN MIR15A MIR16-  1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZAR   1L SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E L MODN ACOD1 LINC00543 LOC100288208 ANKR   D10-T1 LINC00402 CCDC169-SOHLH2 BIVM-ERC5 LINC00558 LINC00565 SLC25A30-AS1</p>	not specified	441764	435426
6	GRCh37/hg19 13q12.11-34(chr13:19571503-115092510)	<p>PARP4 ALOX5AP ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBTB2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT  CNV  GPR183 EDNBR EFNB2 ELF1 ERCC5 ESDF 7F10 FG9 FGF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18   MLNR GTF2F2 GTF3A HMGGB1 HTR2A ING1 PDX1 KPN3 IP05 LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPE NEK3    PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A RB1 RFC3 RFXPAP RFN6 RPL21 ATXN8OS SGCG SLC7A1   SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TP1 TRPC4 TUBA3C UCHL3 ZIC2 ZMYM2 JFT88 STK24 CUL4A TNFSF11 IRS2 S   CEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGEF7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 ITGBL1 KL TM9SF2 IT   M2B MTRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHFPL6 TRIM13 USPL1 MRPS31 SPR   Y2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 P1BF1 OLF4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMD SOX   21 WBP4 AKAP11 KLF12 EXOSC8 RAS3 FNDCA3 DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWAS ZC3H13 SPARTL RCH1 A   TP11A MC2L2 MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC   MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMP UFM1 ATP8A2 IL17D NDFIP2 MPHOSPH8 BIVM SOHLH2 T   MCO3 ENOX1 ARGLU1 DCUN1D2 RCB TB1 PSPC1 NUDT15 GPALPP1 TNFRSF19 SUP20H ANKRD10 RAB20 NAXD UG   GT2 PCID2 CENPJ THSD1 RNFI7 CYS TR2 SPRYD7 COG6 KLHL1 RBM26 XPO4 PCDH20 UPF3A MRPL57 SBMIM2 POGL   UT2 CAR S2 RNFI19 NAA16 RNASEH2B DHR512 GRTP1 BORA RUBCNL PROSER1 TDRD3 CDADC1 CAB39L DIAPH3 C   CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMTC4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STAR D13 N4   BP2L1 TEX30 TPE2 EPST11 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR2   0A SPACA7 RNFI13B FAM216B LACC1 HNRNP A1L2 B3GLCT DGKH CCDC122 GPR180 SOML3 COMMD6 CLYBL MET   TL2 C AMER2 USP12 MTIF3 GSX1 ERIC H6B SPERT DLEU7 FAM124A LRRC63 EEF1AKMT1 SKA3 MICU2 SPATA13 LN   X2 SLC25A30 ZDHC20 PAN3 NALCN HS6T3 DAOA DAOA-  AS1 LINC00567 CHAMP1 SLAH3 KCNKG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTN   F9B SHS A2 NHLRC3 SERP2 SER TM1 ATP11AUN MIR15A MIR16-  1 MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URAD ZAR   1L SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E L MODN ACOD1 LINC00543 LOC100288208 ANKR   D10-T1 LINC00402 CCDC169-SOHLH2 BIVM-ERC5 LINC00558 LINC00565 SLC25A30-AS1</p>	not specified	394462	381355

7	GRCh37/hg19 13q12.11-34(chr13:19571503-115092569)x3	PARP4 ALOX5 ATP12A ATP4B ATP7B BRCA2 KLF5 CDK8 CDX2 RCBTB2 CLN5 COL4A1 COL4A2 CPB2 DACH1 DCT GPR183 EDNRB EFNB2 ELF1 ERCC5 ESD F7F10 FGF9 FGF14 GPC5 FOXO1 FLT1 FLT3 GAS6 GJA3 GJB2 GPR12 GPR18 MLNR GTF2F GTF3A HMG HTR2A ING1 IPDX1 KPN3 IPO5 LAMP1 LCP1 LIG4 LMO7 MAB2L1 SMAD9 MIPPE NEK3 PABPC3 PCCA PCDH8 PCDH9 UBL3 POU4F1 DNAJC3 RAP2A RB1 RFC3 RFXPAP RFNF6 RPL21 ATXN8OS SGCC SLC7A1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 TP1 TRPC4 TUBA3C UCLH3 ZIC2 ZMYM2 IFT88 STK24 CUL4A TNFSF11 IRS2 SCEL SUCLA2 DLEU2 TSC22D1 PROZ ARHGEF7 CDC16 CCNA1 CLDN10 MTMR6 DCLK1 ZMYM5 TGBL1 KL TM9SF2 ITM2B ITRF1 UTP14C NUP58 TBC1D4 GPC6 FRY MBNL2 FARP1 LPAR6 SLC25A15 LHFPL6 TRIM13 USPL1 MRPS31 SPRY2 ABCC4 SAP18 DLEU1 TUBGCP3 N4BP2L2 PIBF1 OLF4 POSTN TNFSF13B GJB6 HSPH1 WASF3 SUGT1 CNMDS SOX21 WBP4 AKAP11 KLF12 EXOSC8 RAS3 FNDCA3 DZIP1 DIS3 MYO16 PDS5B MYCBP2 VWA8 ZC3H13 SPART LRCH1 ATP11A MCF2L1 MTUS2 DOCK9 TGDS SLITRK5 FBXL3 SACS INTS6 LATS2 CKAP2 NUFIP1 NBEA OXGR1 PCDH17 RGCC MED4 DNAJC15 ALG5 VPS36 POLR1D CRYL1 PHF11 POMPU UFM1 ATP8A2 IL17D NDFIP2 MPHOSPH8 BIVM SOHLH2 TMC03 ENOX1 ARGLU1 DCUN1D2 RCBTB1 PSPC1 NUDT15 GPALP1 TNFRSF19 SUP20H ANKRD10 RB20 NAXD UGGT2 PCID2 CENPJ THSD1 RNFI7 CYSLTR2 SPRYD7 COG6 KLHL1 RBM26 XPO4 PCDH20 UPF3A MRPL57 SMIM2 POGLUT2 CARS2 RNFI219 NAA16 RNASEH2B DHRS12 GRTP1 BORAI RUBCNL PROSER1 TDRD3 CADAC1 CAB39L DIAPH3 CDC70 COG3 SETDB2 KATNAL1 KBTBD7 SLITRK6 EBP1 TMTCA4 MEDAG ABHD13 ZIC5 GGACT KBTBD6 STAR1D13 N4BP2L1 TEX30 TPTE2 EPST1 ADPRHL1 SLITRK1 KCTD12 ARL11 WDFY2 TEX29 CSNK1A1L RXFP2 TEX26 SLAIN1 PRR20A SPACA7 RNFI13B FAM216B LACC1 HNRP A1L2 B3GLCT DGKH CCDC122 GPR180 SOML3 COMMD6 CLYBL METTL2 C AMER2 USP12 MTIF3 GSX1 ERIC6B SPERT DLEU7 FAM124A LRRC63 EEF1AKM21 SKA3 MICU2 SPATA13 LNXX2 SLC25A30 ZDHC20 PAN3 NALCN HS6S3 DAOA DAOA-AS1 LINC00567 CHAMP1 SLAH3 KCNKG SLC46A3 UBAC2 C1QTNF9 FREM2 NEK5 TMEM255B KCTD4 RASL11A C1QTNF9B SHISA2 NHLRC3 SERP2 SERM1 ATP11A AUN MIR15A MIR16-1 MIR17H MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG ALG11 MZT1 PCOTH MIR4500HG CCDC168 URADZAR1L SERPINE3 FAM155A CCDC169 PRR20B PRR20C PRR20D PRR20E LMO7 DNACOD1 LOC100288208 ANKRD10-IT1 LINC00402 CCDC169 SOHLH2 BIVM-ERCC5 LINC00558 LINC00565 SLC25A30-AS1	CNV	not specified	253405	247853
8	GRCh37/hg19 13q21.1-34(chr13:56431743-115107733)	ATP4B KLF5 CLN5 COL4A1 COL4A2 DACH1 DCT GPR183 EDNRB EFNB2 ERCC5 F7F10 FGF14 GPC5 GAS6 GPR18 ING1 IPDS LAMP1 LIG4 LMO7 PCCA PCDH9 POU4F1 DNAJC3 RAP2A ATXN8OS SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 UCLH3 ZIC2 STK24 CUL4A IRS2 SCEL PROZ ARHGEF7 CDC16 CLDN10 ITGBL1 TM9SF2 TBC1D4 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 PIBF1 TNFSF13B SOX21 KLF12 RAS3 DZIP1 DIS3 MYO16 MYCBP2 ATP11A MCF2 DOCK9 TGDS SLITRK5 FBXL3 OXGR1 PCDH17 NDFIP2 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RB20 NAXD UGGT2 PCID2 KLHL1 RBM26 CDH20 UPF3A POGLUT2 CARS2 RNFI219 GRTP1 BORAI TDRD3 DIAPH3 SLITRK6 TMTCA4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 KCTD12 TEX29 SLAIN1 PRR20A SPACA7 RNFI13B GPR180 COMMD6 CLYBL METTL2 C NALCN HS6S3 DAOA DAOA-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG MZT1 MIR4500HG CCDC168 FAM155A PRR20B PRR20C PRR20D PRR20E LMO7 DNACOD1 LOC100288208 ANKRD10-IT1 LINC00402 BIVM-ERCC5 LINC00565	CNV	not specified	442796	436458
9	GRCh37/hg19 13q21.2-34(chr13:61424168-115107733)x3	ATP4B KLF5 CLN5 COL4A1 COL4A2 DACH1 DCT GPR183 EDNRB EFNB2 ERCC5 F7F10 FGF14 GPC5 GAS6 GPR18 ING1 IPDS LAMP1 LIG4 LMO7 PCCA PCDH9 POU4F1 DNAJC3 RAP2A ATXN8OS SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 UCLH3 ZIC2 STK24 CUL4A IRS2 SCEL PROZ ARHGEF7 CDC16 CLDN10 ITGBL1 TM9SF2 TBC1D4 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 PIBF1 TNFSF13B SOX21 KLF12 RAS3 DZIP1 DIS3 MYO16 MYCBP2 ATP11A MCF2 DOCK9 TGDS SLITRK5 FBXL3 OXGR1 NDFIP2 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RB20 NAXD UGGT2 PCID2 KLHL1 RBM26 CDH20 UPF3A POGLUT2 CARS2 RNFI219 GRTP1 BORAI SLITRK6 TMTCA4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 KCTD12 TEX29 SLAIN1 SPACA7 RNFI13B GPR180 COMMD6 CLYBL METTL2 C NALCN HS6S3 DAOA DAOA-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG MZT1 MIR4500HG CCDC168 FAM155A LMO7 DNACOD1 LOC100288208 ANKRD10-IT1 LINC00402 BIVM-ERCC5 LINC00565	CNV	not specified	396872	383765
10	GRCh37/hg19 13q21.33-34(chr13:71871468-115107733)x4	ATP4B KLF5 CLN5 COL4A1 COL4A2 DACH1 DCT GPR183 EDNRB EFNB2 ERCC5 F7F10 FGF14 GPC5 GAS6 GPR18 ING1 IPDS LAMP1 LIG4 LMO7 PCCA PCDH9 POU4F1 DNAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 UCLH3 ZIC2 STK24 CUL4A IRS2 SCEL PROZ ARHGEF7 CDC16 CLDN10 ITGBL1 TM9SF2 TBC1D4 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 PIBF1 TNFSF13B SOX21 KLF12 RAS3 DZIP1 DIS3 MYO16 MYCBP2 ATP11A MCF2 DOCK9 TGDS SLITRK5 FBXL3 OXGR1 NDFIP2 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RB20 NAXD UGGT2 PCID2 RBM26 UPF3A POGLUT2 CARS2 RNFI219 GRTP1 BORAI SLITRK6 TMTCA4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 KCTD12 TEX29 SLAIN1 SPACA7 RNFI13B GPR180 COMMD6 CLYBL METTL2 C NALCN HS6S3 DAOA DAOA-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG MZT1 MIR4500HG CCDC168 FAM155A LMO7 DNACOD1 LOC100288208 ANKRD10-IT1 LINC00402 BIVM-ERCC5 LINC00565	CNV	not specified	441662	435324
11	GRCh37/hg19 13q22.3-34(chr13:78590089-115107733)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7F10 FGF14 GPC5 GAS6 GPR18 ING1 IPDS LAMP1 LIG4 PCCA POU4F1 DNAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 CLDN10 ITGBL1 TM9SF2 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 TNFSF13B SOX21 RAS3 DZIP1 MYO16 ATP11A MCF2 LDOCK9 TGDS SLITRK5 OXGR1 NDFIP2 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RB20 NAXD UGGT2 PCID2 RBM26 UPF3A POGLUT2 CARS2 RNFI219 GRTP1 SLITRK6 TMTCA4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 RNFI13B GPR180 COMMD6 CLYBL METTL2 C NALCN HS6S3 DAOA DAOA-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG MZT1 MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	564082	555266

12	GRCh37/hg19	13q31.1-34(chr13:80058840-115107733)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GR TP1 SLITRK6 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	441797	435459
13	GRCh37/hg19	13q31.1-34(chr13:82221361-115092569)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GR TP1 SLITRK6 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	395156	382049
14	GRCh37/hg19	13q31.1-34(chr13:83435292-115107733)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GR TP1 SLITRK6 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	443213	436875
15	GRCh37/hg19	13q31.1-34(chr13:85176519-115107733)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GR TP1 SLITRK6 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	442311	435973
16	GRCh37/hg19	13q31.2-34(chr13:88073140-115107733)x1	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GR TP1 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  MIR4500HG CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	397046	383939
17	GRCh37/hg19	13q31.2-34(chr13:89796110-115083342)x1	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1  TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS  OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B1 MIR20A MIR92A1 MIR17HG  CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	253491	247939
18	GRCh37/hg19	13q31.3-34(chr13:94269729-115107733)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA DNAJC3  RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1 TM9SF 2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS OXGR 1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMC4 AB HD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO A-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	397317	384210
19	GRCh37/hg19	13q31.3-34(chr13:94474530-115107733)x1	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA DNAJC3  RAP2A SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 CLDN10 ITGBL1 TM9SF 2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASAS3 DZIP1 MYO16 ATP11A MCFL2L DOCK9 TGDS OXGR 1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMC4 AB HD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNFF113B GPR180 CLYBL METTL2 C NALCN HS6S3 DAAO DAAO A-AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	442647	436309
20	GRCh37/hg19	13q32.1-34(chr13:96586481-115107733)x1	ATP4B COL4A1 COL4A2 GPR183 EFNB2 ERCC5 F7 F10 FGF14 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA RAP2A SLC1 0A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGFE7 CDC16 ITGBL1 TM9SF2 MBNL2 FARP1 TUB GCP3 TNFSF13B RASAS3 MYO16 ATP11A MCFL2L DOCK9 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 N AXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RN F113B CLYBL METTL2 C NALCN HS6S3 DAAO DAAO- AS1 LINC00567 CHAMP1 UBAC2 TMEM255B ATP11A AUN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	442938	436600

21	GRCh37/hg19	13q32.3-34(chr13:101075864-115105020)x1	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 PCCA SLC10A2 SOX1 TFDP1 TPP2 CUL4 ARS2 PROZ ARHGFE7 CDC16 ITGBL1 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A POGLUT2 CAR2 GRTP1 TMTCA ABHD13 GGACT TEX30 ADPRHL1 TEX29 SPACA7 METTL21C NALCN DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	601721	593057
22	GRCh37/hg19	13q32.3-34(chr13:101357397-115107733)x1	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 SLC10A2 SOX1 TFDP1 TPP2 CUL4A IRS2 PROZ ARHGFE7 CDC16 ITGBL1 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A POGLUT2 CAR2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 METTL21C NALCN DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	396224	383117
23	GRCh37/hg19	13q33.1-34(chr13:103170306-115107733)x1	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 GAS6 ING1 LAMP1 LIG4 SLC10A2 SOX1 TFDP1 TPP2 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A POGLUT2 CAR2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 METTL21C NALCN DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN CCDC168 FAM155A ANKRD10-IT1 BIVM-ERCC5 LINC00565	CNV	not specified	442271	435933
24	GRCh37/hg19	13q33.1-34(chr13:103880953-115107733)x1	ATP4B COL4A1 COL4A2 EFNB2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN FAM155A ANKRD10-IT1 LINC00565	CNV	not specified	442100	435762
25	GRCh37/hg19	13q33.1-34(chr13:104539503-115103529)x1	ATP4B COL4A1 COL4A2 EFNB2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN FAM155A ANKRD10-IT1 LINC00565	CNV	not specified	614254	605590
26	GRCh37/hg19	13q33.2-34(chr13:105389857-113467489)x1	COL4A1 COL4A2 EFNB2 ING1 LIG4 SOX1 IRS2 ARHGFE7 TUBGCP3 TNFSF13B MYO16 ATP11A ARGLU1 ANKRD10 AB20 NAXD CAR2 ABHD13 TEX29 SPACA7 DAOA DAOA-AS1 LINC00567 ATP11A UN FAM155A ANKRD10-IT1	CNV	not specified	564078	555262
27	GRCh37/hg19	13q33.2-34(chr13:106056749-115107733)x1	ATP4B COL4A1 COL4A2 EFNB2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 DAOA DAOA-AS1 LINC00567 CHAMP1 TMEM255B ATP11A UN FAM155A ANKRD10-IT1 LINC00565	CNV	not specified	396179	383072
28	GRCh37/hg19	13q33.2-34(chr13:106450862-115107733)x1	ATP4B COL4A1 COL4A2 EFNB2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 CHAMP1 TMEM255B ATP11A UN FAM155A ANKRD10-IT1 LINC00565	CNV	not specified	397171	384064
29	GRCh37/hg19	13q33.2-34(chr13:106941499-113674752)x3	COL4A1 COL4A2 EFNB2 ING1 LIG4 SOX1 IRS2 ARHGFE7 TUBGCP3 TNFSF13B MYO16 ATP11A MCF2L ARGLU1 ANKRD10 AB20 NAXD CAR2 ABHD13 TEX29 SPACA7 LINC00567 ATP11A UN FAM155A ANKRD10-IT1	CNV	not specified	396232	383125
30	GRCh37/hg19	13q33.3-34(chr13:108083664-115107733)x1	ATP4B COL4A1 COL4A2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 CHAMP1 TMEM255B ATP11A UN FAM155A ANKRD10-IT1 LINC00565	CNV	not specified	564077	555261
31	GRCh37/hg19	13q33.3-34(chr13:108567578-115107733)x3	ATP4B COL4A1 COL4A2 F7F10 GAS6 ING1 LAMP1 LIG4 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 CHAMP1 TMEM255B ATP11A UN ANKRD10-IT1 LINC00565	CNV	not specified	564076	555260
32	GRCh37/hg19	13q33.3-34(chr13:109151651-115107733)x1	ATP4B COL4A1 COL4A2 F7F10 GAS6 ING1 LAMP1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 RAS3 MYO16 ATP11A MCF2L TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ADPRHL1 TEX29 SPACA7 LINC00567 CHAMP1 TMEM255B ATP11A UN ANKRD10-IT1 LINC00565	CNV	not specified	441710	435372
33	GRCh37/hg19	13q33.3-34(chr13:109771548-115107733)x1	ATP4B COL4A1 COL4A2 F7F10 GAS6 ING1 LAMP1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 RAS3 MYO16 ATP11A MCF2L TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR2 GRTP1 ADPRHL1 TEX29 SPACA7 LINC00567 CHAMP1 TMEM255B ATP11A UN ANKRD10-IT1 LINC00565	CNV	not specified	564074	555258
34	GRCh37/hg19	13q34(chr13:110590097-111395766)x3	COL4A1 COL4A2 ING1 RAB20 NAXD CAR2	CNV	not specified	564046	555230
35	GRCh37/hg19	13q34(chr13:110848498-111132556)x3	COL4A1 COL4A2	CNV	not specified	601748	593084
36	GRCh37/hg19	13q34(chr13:110946122-111292044)x3	COL4A1 COL4A2 RAB20 NAXD	CNV	not specified	564030	555214
37	GRCh37/hg19	13q34(chr13:110959350-110960146)x0	COL4A1 COL4A2	CNV	not specified	601749	593085
38	GRCh37/hg19	13q34(chr13:110959350-110961114)x0	COL4A1 COL4A2	CNV	not specified	614266	605602



41 GRCh38/hg38 13q11-34(chr13:18565048-114327173)x3

PARP1A LOXSAPATP12A1ATPB1ATPB7BRCA2KLF5(CDK8;CDX2)RCBTR2CLN5COL4A1COL4A2CPB2DACH1DCTGPR183EDNRBEFN2ELF1E  
RCC5E9F7F10FG9FGF4G5(GPC5XO1)JL1T1ELT3GAS6GJA3GB2GPR12GPR18MNLNRGT2P2GTF3A1JHMG81HTR2AJN1PDX1J1KPA31PO  
5LAMP1LCP1LIGL4LM07MAE1L1SMA9M1PEPEK3PABPC3PCCA(PCDH8;PCDH9)UBL3POU4F1DNAJC3RAP2ARB1RFC3RFXAARGK1RNF6  
RPL21A1TXN80S GCGSLC7A1SLC10A2SLC15A1SOX11TFDP1TPP2TP11TRPC4TUBA3CUC1H3ZIC2ZMYM21F88STK24CUL4A1TNFSF11HRS2  
SCEL1SLCLA2DEU21TSC22D1PROZARHGEF7CDC16CCNA11CLDN10MTMR6DCLK1ZMYM51TGBL1KJL1TM9SF21TM2BMTRF1UTP14CNUPS8  
TBC1D4GPC6FRY1MBNL2FARPI1PAR6SLC25A15LHPL61TRIM13USPL1MRRP51SPRY21ABCC4SAP8DLEU11TUBGCP3N4BP2L2PBB1OLFMA4P  
OSTN1TNFSF13BGJ6HSPH1WASF3SUGT11CNMD;SOX211WBPAKAP11KLF12EXOSC8RASA3FNDC3A1DZP1DIS3MYO16POSSBMYCB2VW  
A8ZCH13SPART1LRCH1ATP11A1MCT21MTUS2DOCK91TGDSS1TRK5FBXL3SACSIN1TS6LATS2CKAP2N1FIP1SNORD102NBEA1OXGR1PCD  
H17RCCCMED4DNAJC15ALG51VPS36POLRIDCRY11PHF11POMP1UMF11ATPA21L17DN1ND1P2MPHOSPH8BIVMSOHLH21TMC031ENOX1ARG  
L11DCUN1D2RCB1B1PSC1NUDT15GPA1PP11TFRSF19S1PT20H1ANKRD10RAB20NAXD1UGGT21PCD21CENP1THSD11RNF17CVS1TR2SPRYD  
7COG6KLLH11RBM26XP04PCDH20UPF3A1MRPL57SMIM21POGLU21CARS2RNF219NAA16RNA5EH2BDHRS12GRTP1BORARUBCNLPROSER1  
1TRD31CADAC1CAB39L1DIAPH3CCD70COG3SETDB2KATNAL1K1BTB7SLITRK6EBPL1TMTCH1MEDAG1ABHD13Z1C5GGACTK1BTB6STAR  
D13N4BP2L1TE301TPE2EPST11ADPRHL1SLITRK1KCTD12ARL11WDFY2N4BP2L2-  
TT21EX291LINC00284CSNK1A1L1RXFP21TEX26SLAIN1PRR20A1SPACA7RNF113BLINC00355LINC00410FAM216BLACCL1LINC00330LINC00343H  
NRNP1121BGLCT1DGKHCCDC122GPR180STOML3COMMD61UBE2L5CLYBLMET121CAMER21USP12MTF3G5X1ERICH6BSPERTDLEU7FA  
M124L1RR631EEF1AKMT1SKA31M1CU2SPATA131LNX2SLC25A30ZHHHC20PAN3ALCN1H86T31DAOA1DAOA-AS11FGF4-111FGF4-  
AS21LINC00551LINC00567LINC00346CHAMP1SAH3KCNRG1TME272SLC46A31UBAC21LINC00550LINC00447C1QTNF9FREM2NEK51TME255  
BLINC00442KCTD4IRASL11A1C1QTNF9BHS2NHLRC3SERP2SERM1LINC00547LINC00548TUSC8ATP11AUN1MIR15A1MIR16-  
11MIR171MIR18A1MIR19A1MIR19B1MIR20A1MIR92A1MIR17HG1LINC00544LINC00545ALG11JZT1PCO1TH1SNORA27TSC22D1-  
AS1MIR4500HG1LINC00452CCDC168URAD1ZAR1L1LINC00598C13orf42SERPNE31OC647264GAS6-  
AS11SNORA31MIR621MIR623LINC00460FAM155A1CCDC169PRR20BPRR20CPRR20DPRR20E1LMO7DN1ACOD11LOC100129307LINC00462  
COL4A2-AS21LINC00552FKSG291LINC00543LINC00426TRE-TTC211TRN-GTT2-4TRF-GAA1-5TRE-TTC1-21TPT1-  
AS11LINC004211LOC10028208PAN3-AS1DNAJC3-DTUBAC2-AS1MCP2L-  
AS1MIR1297MIR1267MIR759MIR2276MIR320D1MIR4306MIR3168MIR3170MIR4305MIR3169MIR3665MIR3613ANKRD10-1T1EDNRB-  
AS1RBM26-AS1SOX1-OT1LOC100506016GAS6-DT1LINC00540SACS-AS1LINC003271TEX26-AS1FRY-AS1LINC00445SPART-AS1VWA8-  
AS11NTS6-AS1LINC00458SOX21-AS1LINC00402C13orf46CPB2-AS1CCDC169-SOHLH2BIVM-  
ERCC5MIR2681MIR4500MIR4500MIR4704MIR4502MIR4705MIR548X2MIR4499MIR4703LINC00408LINC00539MIR5007MIR5693MIR5006MIR54  
8ARM1R548AS1DOCK9-  
DT1LINC00554LINC00557LINC00561LINC00564LINC00566LINC00562PLU1LINC00558LINC00560LINC00563LINC00565LINC00572RBI-  
DT1MED4-AS1GPC5-AS1GPC5-AS2GPC6-AS1GPC6-AS2LINC00297CLYBL-AS2PCDH9-AS2GRTP1-AS1STK24-AS1USP12-AS1USP12-AS2FREM2-  
AS1DLEU7-AS11FGF4-AS11HTR2A-AS1PCDH9-AS1PCDH9-AS4DOCK9-AS1MTUS2-AS1LINC00331LINC00332LINC00333ENOX1-  
AS21LINC00350LINC00351LINC00353LINC00358LINC00364LINC00365LINC00366LINC00379LINC00381LINC00392LINC00393LINC00395LINC0  
0398LINC00400LINC00411LINC00417LINC00423LINC00433LINC00434LINC00440LINC00446LINC00448LINC00454LINC00457LINC0  
0459LINC00424LINC00559LINC00571CLDN10-AS1DIAPH3-AS1DIAPH3-AS2COL4A2-AS1ATP11A-AS1NDFIP2-AS1MYCB2-AS1RNF219-  
AS11ARHGEF7-AS1SPAT1A3-AS11ARHGEF7-AS2STARD13-AS1RNA5EH2B-AS1SLC25A30-AS1FAM155A-1T1SMIM2-1T1PCCA-AS1NALCN-  
AS1LINC00348MYO16-AS1LINC00359LINC006211LOC101060553LINC00676LINC01080LINC02338LINC00378LINC02339L1M07-  
AS1LINC01069LINC00382LINC010491LOC101927248LOC101927248LOC101927437CLYBL-

not specified

13 18565048 - 114327173

59851

74446

42 GRCh38/hg38 13q11-34(chr13:18850545-114327173)x3

PARP1A LOXSAPATP12A1ATPB1ATPB7BRCA2KLF5(CDK8;CDX2)RCBTR2CLN5COL4A1COL4A2CPB2DACH1DCTGPR183EDNRBEFN2ELF1E  
RCC5E9F7F10FG9FGF4G5(GPC5XO1)JL1T1ELT3GAS6GJA3GB2GPR12GPR18MNLNRGT2P2GTF3A1JHMG81HTR2AJN1PDX1J1KPA31PO  
5LAMP1LCP1LIGL4LM07MAE1L1SMA9M1PEPEK3PABPC3PCCA(PCDH8;PCDH9)UBL3POU4F1DNAJC3RAP2ARB1RFC3RFXAARGK1RNF6  
RPL21A1TXN80S GCGSLC7A1SLC10A2SLC15A1SOX11TFDP1TPP2TP11TRPC4TUBA3CUC1H3ZIC2ZMYM21F88STK24CUL4A1TNFSF11HRS2  
SCEL1SLCLA2DEU21TSC22D1PROZARHGEF7CDC16CCNA11CLDN10MTMR6DCLK1ZMYM51TGBL1KJL1TM9SF21TM2BMTRF1UTP14CNUPS8  
TBC1D4GPC6FRY1MBNL2FARPI1PAR6SLC25A15LHPL61TRIM13USPL1MRRP51SPRY21ABCC4SAP8DLEU11TUBGCP3N4BP2L2PBB1OLFMA4P  
OSTN1TNFSF13BGJ6HSPH1WASF3SUGT11CNMD;SOX211WBPAKAP11KLF12EXOSC8RASA3FNDC3A1DZP1DIS3MYO16POSSBMYCB2VW  
A8ZCH13SPART1LRCH1ATP11A1MCT21MTUS2DOCK91TGDSS1TRK5FBXL3SACSIN1TS6LATS2CKAP2N1FIP1SNORD102NBEA1OXGR1PCD  
H17RCCCMED4DNAJC15ALG51VPS36POLRIDCRY11PHF11POMP1UMF11ATPA21L17DN1ND1P2MPHOSPH8BIVMSOHLH21TMC031ENOX1ARG  
L11DCUN1D2RCB1B1PSC1NUDT15GPA1PP11TFRSF19S1PT20H1ANKRD10RAB20NAXD1UGGT21PCD21CENP1THSD11RNF17CVS1TR2SPRYD  
7COG6KLLH11RBM26XP04PCDH20UPF3A1MRPL57SMIM21POGLU21CARS2RNF219NAA16RNA5EH2BDHRS12GRTP1BORARUBCNLPROSER1  
1TRD31CADAC1CAB39L1DIAPH3CCD70COG3SETDB2KATNAL1K1BTB7SLITRK6EBPL1TMTCH1MEDAG1ABHD13Z1C5GGACTK1BTB6STAR  
D13N4BP2L1TE301TPE2EPST11ADPRHL1SLITRK1KCTD12ARL11WDFY2N4BP2L2-  
TT21EX291LINC00284CSNK1A1L1RXFP21TEX26SLAIN1PRR20A1SPACA7RNF113BLINC00355LINC00410FAM216BLACCL1LINC00330LINC00343H  
NRNP1121BGLCT1DGKHCCDC122GPR180STOML3COMMD61UBE2L5CLYBLMET121CAMER21USP12MTF3G5X1ERICH6BSPERTDLEU7FA  
M124L1RR631EEF1AKMT1SKA31M1CU2SPATA131LNX2SLC25A30ZHHHC20PAN3ALCN1H86T31DAOA1DAOA-AS11FGF4-111FGF4-  
AS21LINC00551LINC00567LINC00346CHAMP1SAH3KCNRG1TME272SLC46A31UBAC21LINC00550LINC00447C1QTNF9FREM2NEK51TME255  
BLINC00442KCTD4IRASL11A1C1QTNF9BHS2NHLRC3SERP2SERM1LINC00547LINC00548TUSC8ATP11AUN1MIR15A1MIR16-  
11MIR171MIR18A1MIR19A1MIR19B1MIR20A1MIR92A1MIR17HG1LINC00544LINC00545ALG11JZT1PCO1TH1SNORA27TSC22D1-  
AS1MIR4500HG1LINC00452CCDC168URAD1ZAR1L1LINC00598C13orf42SERPNE31OC647264GAS6-  
AS11SNORA31MIR621MIR623LINC00460FAM155A1CCDC169PRR20BPRR20CPRR20DPRR20E1LMO7DN1ACOD11LOC100129307LINC00462  
COL4A2-AS21LINC00552FKSG291LINC00543LINC00426TRE-TTC211TRN-GTT2-4TRF-GAA1-5TRE-TTC1-21TPT1-  
AS11LINC004211LOC10028208PAN3-AS1DNAJC3-DTUBAC2-AS1MCP2L-  
AS1MIR1297MIR1267MIR759MIR2276MIR320D1MIR4306MIR3168MIR3170MIR4305MIR3169MIR3665MIR3613ANKRD10-1T1EDNRB-  
AS1RBM26-AS1SOX1-OT1LOC100506016GAS6-DT1LINC00540SACS-AS1LINC003271TEX26-AS1FRY-AS1LINC00445SPART-AS1VWA8-  
AS11NTS6-AS1LINC00458SOX21-AS1LINC00402C13orf46CPB2-AS1CCDC169-SOHLH2BIVM-  
ERCC5MIR2681MIR4500MIR4500MIR4704MIR4502MIR4705MIR548X2MIR4499MIR4703LINC00408LINC00539MIR5007MIR5693MIR5006MIR54  
8ARM1R548AS1DOCK9-  
DT1LINC00554LINC00557LINC00561LINC00564LINC00566LINC00562PLU1LINC00558LINC00560LINC00563LINC00565LINC00572RBI-  
DT1MED4-AS1GPC5-AS1GPC5-AS2GPC6-AS1GPC6-AS2LINC00297CLYBL-AS2PCDH9-AS2GRTP1-AS1STK24-AS1USP12-AS1USP12-AS2FREM2-  
AS1DLEU7-AS11FGF4-AS11HTR2A-AS1PCDH9-AS1PCDH9-AS4DOCK9-AS1MTUS2-AS1LINC00331LINC00332LINC00333ENOX1-  
AS21LINC00350LINC00351LINC00353LINC00358LINC00364LINC00365LINC00366LINC00379LINC00381LINC00392LINC00393LINC00395LINC0  
0398LINC00400LINC00411LINC00417LINC00423LINC00433LINC00434LINC00440LINC00446LINC00448LINC00454LINC00457LINC0  
0459LINC00424LINC00559LINC00571CLDN10-AS1DIAPH3-AS1DIAPH3-AS2COL4A2-AS1ATP11A-AS1NDFIP2-AS1MYCB2-AS1RNF219-  
AS11ARHGEF7-AS1SPAT1A3-AS11ARHGEF7-AS2STARD13-AS1RNA5EH2B-AS1SLC25A30-AS1FAM155A-1T1SMIM2-1T1PCCA-AS1NALCN-  
AS1LINC00348MYO16-AS1LINC00359LINC006211LOC101060553LINC00676LINC01080LINC02338LINC00378LINC02339L1M07-  
AS1LINC01069LINC00382LINC010491LOC101927248LOC101927248LOC101927437CLYBL-

not specified

13 18850545 - 114327173

59855

74450



43 GRCh38/hg38 13q11-34(chr13:18862146-114342258)x3

PARP4|A|OXSA|PATP12A|ATPB|ATPB|BRCA2|KL|F5|CDK8|CDX2|RCB|BTR2|CLN5|COL4A1|COL4A2|CPB2|DACH1|DCT|GPR183|EDNRB|EFNB2|ELF1|E...

CNV

not specified

13 18862146 - 114342258

155395

165149

44 GRCh38/hg38 13q12.11-34(chr13:18946182-114304628)x3

PARP4|A|OXSA|PATP12A|ATPB|ATPB|BRCA2|KL|F5|CDK8|CDX2|RCB|BTR2|CLN5|COL4A1|COL4A2|CPB2|DACH1|DCT|GPR183|EDNRB|EFNB2|ELF1|E...

CNV

not specified

13 18946182 - 114304628

59858

74453

45 GRCh38/hg38 13q12.11-34(chr13:19671934-114340331)x3 CNV not specified 13 19671934 - 114340331 154857 164611

PARP1A1OX5APATP12A1ATPB7BRC2AKL5(CDK8;CDX2)RCHT2;CLN5COL4A1(COL4A2;CPB2)DACH1(DCTGPR183)EDNRBF2ELFHIE  
RCC5E97F7F10FG9FGF4(GFCSFOX1)JL7TL1E13G6AGJ3(GJB2)GPR12GPR18M1N9GTF2P2F2GTF3A(HMG)H1TR2A(JIPDX1)KPN3A1PO  
S1LAMP1LCP1LIG4LM07MAE2L1(SMA)M9MPEPNEK3(PABPC3)PCCA(PCDH8;PCDH9)UBL3(POL4F1)DNAJC3(RA)P2ARB1(RFC3)RFXA(GRK1)RNF6  
[RPL2]ATXN8OSGGC(SGC7)A1(SLC10A2)SLC15A1(SOX1)ITDP1TPP2TP1TRPC4(UCHL3)ZIC2(ZMYM2)JFTR88(STK24)CUL4A(TNFSF11)R2SCELSU  
CLA2(DLEU2;TSC2)D1PROZ(ARHGEP7)CDC16(CCN4)CLDN10(MTMR6)DCLK1(ZMYM5)ITGBL1(KL)TMPSF2(TM2B)MTRF1(UTP14)CNU58(TBC1D4)  
GPC6(FRY)MBNL2(FARP1)PAR6(SLC25A15)LHPL6(TRM13)USPL1(MRPS31)SPRY2(ABCC4)SAP18(DLEU1)TUBGCP3(N4BP2L2)PIBF1(OLF)M4(POSTN)TN  
FSF13B(CJ6)HSPH1(WASF3)SGT1(CNMD)SOX21(WB4)AKAP1(KLFL)E2XOSCB(RASA3)FNDCA3(DZP1)DIS3(MY16)PDS5B(MYCBP2)WVA(ZC3H1  
3)SPART1(LCH1)ATP1A(MCT2)M1TUS2(DOCK9)TGDSLITRKS5(FBXL3)SACSINTS6(LATS2)CAK2(P2)NUFIP1(SNORD102)NBEA(OXGR1)PCDH17(RGCC)  
MED4(NAC15)ALG5(VPS36)POLRID(CRYL1)PHF1(POMP)UFM1(ATPA2)IL7(D)NDFIP2(BVM)SOHLH2(TMC03)ENOX1(ARGLU)DCUN1D2(RCBTB  
1)NUDT15(GPAL)PPI(TNFRSF19)SPT20H(ANKRD10)RAB20NAXD(UGGT2)PCD2(CENP)THSD1(RNF7)CVS(TR2)SPRYD7(CO6)KLHL1(RBM26)XP04  
[PCDH20]UPF3A(MRPL57)SMIM2(POGLU2)CARSL(RNF219)NAA16(RNA)SEH2B(DHRS1)2(GRTP1)BORAR(BCNL)PROSER1(TDRD3)CD  
ADC1(CAB39)LDIAPH3(CDC70)COG3(SETDB2)KATNAL1(KBTBD7)SLITRK6(EBP4)TMT4(MED)AG(BHD13)ZIC5(GGACT)KBTBD6(STRD13)N4BP2  
L1(TEX30)EPST11(ADPRHL1)SLITRK1(KCTD12)ARL11(WDFY2)N4BP2L2  
IT2(TEX29)LINC00284(CSNK1A)IL1RXFP2(TEX26)SLAIN1(PRR20A)SPACA7(RNF138)LINC00355(LINC00410)FAM216B(LACC1)LINC00330(LINC00343)H  
NRNP1L2(B3GL)CT(DGKH)CCDC122(GPR180)STOML3(COMMD6)UBE2L5(CLYBL)METTL21(CAMER2)USP12(MTF3)G5X1(ERIC)H6B(SPERT)DLEU7(FA  
M124A)LRRC63(EFF)AKMT1(SKA3)M1CUC2(SPAT1)3(LNX2)SLC25A30(ZHHC20)PAN3(NALCN)H86S3(DA0A)DA0A-ASI(FGF4-T1)FGF4-  
AS2(LINC00551)LINC00567(LINC00346)CHAMP1(SAH3)KCNRG(TMEM272)SLC46A3(UBAC2)LINC00550(LINC00347)C1QTN9(FREM2)NEK5(TMEM255)BKCTD4  
RASL1A(C1Q)TN9(B)SHSA2(NHLR3)SERP2(SERTM1)LINC00547(LINC00548)TUSC8(ATP1A)UN(MIR15A)MIR16-  
1(MIR17)MIR18A(MIR19A)MIR19B1(MIR20A)MIR92A1(MIR17)H(LINC00544)LINC00545(ALG11)MZT1(PCOTH)SNORA27(TSC22D1-  
AS1)MIR4500B(LINC00452)CCDC168(URAD)ZAR1(LINC00598)C3orf42(SERPINE3)LOC647264(GAS6-  
AS1)SNORA31(MIR621)MIR623(MIR623)LINC00460(FAM155A)CCDC169(PRR20B)PRR20C(PRR20D)PRR20E(LMOTDN)ACOD1(LOC100129307)LINC00462  
COL4A2-AS2(LINC00552)FKSG29(LINC00543)LINC00426(TRE-TTC2)1(TRN-GTT2-4)TRF-GAA1-5(TRE-TTC1-2)TPT1-AS1(LOC100288208)PAN3-  
AS1(DN)A3C-D1(TUBAC2-AS1)MCF2L-  
AS1(MIR1297)MIR1267(MIR759)MIR2276(MIR320D1)MIR4306(MIR3168)MIR3170(MIR4305)MIR3169(MIR3665)MIR3613(ANKRD10-T1)EDNRB-  
AS1(RBM26-AS1)SOX1-OT(LOC100506016)GAS6-DT1(LINC00540)SACS-AS1(LINC00327)TEX26-AS1(FRY-AS1)LINC00445(SPART-AS1)WVA8-  
AS1(INTS6-AS1)LINC00458(SOX21-AS1)LINC00402(C13orf46)CPB2-AS1(CDC169-SOHLH2)BIVM-  
ERCC5(MIR2681)MIR4501(MIR4500)MIR4704(MIR4502)MIR4705(MIR548X2)MIR4499(MIR4703)LINC00539(MIR5007)MIR5693(MIR5006)MIR548A(R)MIR54  
8AS(DOCK9-  
D1)LINC00554(LINC00557)LINC00561(LINC00564)LINC00566(LINC00562)PLUT(LINC00558)LINC00560(LINC00563)LINC00555(LINC00572)RBI-  
DT(MED4-AS1)GPC5-AS1(GPC5-AS2)GPC6-AS1(GPC6-AS2)LINC00297(CLYBL-AS2)PCDH9-AS2(GRTP1-AS1)STK24-AS1(USP12-AS1)USP12-AS2(FREM2-  
AS1)DLEU7-AS1(FGF4-AS1)HTR2A-AS1(PCDH9-AS1)PCDH9-AS4(DOCK9-AS1)MTUS2-AS1(LINC00331)LINC00332(LINC00333)ENOX1-  
AS2(LINC00351)LINC00353(LINC00358)LINC00364(LINC00365)LINC00366(LINC00379)LINC00381(LINC00392)LINC00393(LINC00395)LINC00398(LINC0  
0400)LINC00411(LINC00423)LINC00431(LINC00434)LINC00440(LINC00443)LINC00446(LINC00448)LINC00449(LINC00457)LINC00459(LINC00424)LINC0  
0559(LINC00571)CLDN10-AS1(DIAPH3-AS1)DIAPH3-AS2(COL4A2-AS1)ATP1A-AS1(NDFIP2-AS1)MYCBP2-AS1(RNF19-AS1)ARHGEP7-AS1(SPAT1A3-  
AS1)ARHGEP7-AS2(STRD13-AS1)RNA)SEH2B-AS1(SLC25A30-AS1)FAM155A-TT(SMIM2-TT)PCCA-AS1(NALCN-AS1)LINC00348(MYO16-  
AS1)LINC00359(LINC00621)LOC101060553(LINC00676)LINC00810(LINC02338)LINC00378(LINC02339)LMO7-  
AS1(LINC01069)LINC00382(LINC01049)LOC101927248(LOC101927284)LOC101927437(CLYBL-  
D1)LINC00554(LINC00557)LINC00561(LINC00564)LINC00566(LINC00562)PLUT(LINC00558)LINC00560(LINC00563)LINC00555(LINC00572)RBI-  
DT(MED4-AS1)GPC5-AS1(GPC5-AS2)GPC6-AS1(GPC6-AS2)LINC00297(CLYBL-AS2)PCDH9-AS2(GRTP1-AS1)STK24-AS1(USP12-AS1)USP12-AS2(FREM2-  
AS1)DLEU7-AS1(FGF4-AS1)HTR2A-AS1(PCDH9-AS1)PCDH9-AS4(DOCK9-AS1)MTUS2-AS1(LINC00331)LINC00332(LINC00333)ENOX1-  
AS2(LINC00351)LINC00353(LINC00358)LINC00364(LINC00365)LINC00366(LINC00379)LINC00381(LINC00392)LINC00393(LINC00395)LINC00398(LINC0  
0400)LINC00411(LINC00423)LINC00431(LINC00434)LINC00440(LINC00443)LINC00446(LINC00448)LINC00449(LINC00457)LINC00459(LINC00424)LINC0  
0559(LINC00571)CLDN10-AS1(DIAPH3-AS1)DIAPH3-AS2(COL4A2-AS1)ATP1A-AS1(NDFIP2-AS1)MYCBP2-AS1(RNF19-AS1)ARHGEP7-AS1(SPAT1A3-  
AS1)ARHGEP7-AS2(STRD13-AS1)RNA)SEH2B-AS1(SLC25A30-AS1)FAM155A-TT(SMIM2-TT)PCCA-AS1(NALCN-AS1)LINC00348(MYO16-  
AS1)LINC00359(LINC00621)LOC101060553(LINC00676)LINC00810(LINC02338)LINC00378(LINC02339)LMO7-  
AS1(LINC01069)LINC00382(LINC01049)LOC101927248(LOC101927284)LOC101927437(CLYBL-

46 GRCh38/hg38 13q12.11-34(chr13:19833130-114298614)x3 CNV not specified 13 19833130 - 114298614 144647 154398

PARP1A1OX5APATP12A1ATPB7BRC2AKL5(CDK8;CDX2)RCHT2;CLN5COL4A1(COL4A2;CPB2)DACH1(DCTGPR183)EDNRBF2ELFHIE  
RCC5E97F7F10FG9FGF4(GFCSFOX1)JL7TL1E13G6AGJ3(GJB2)GPR12GPR18M1N9GTF2P2F2GTF3A(HMG)H1TR2A(JIPDX1)KPN3A1PO  
S1LAMP1LCP1LIG4LM07MAE2L1(SMA)M9MPEPNEK3(PABPC3)PCCA(PCDH8;PCDH9)UBL3(POL4F1)DNAJC3(RA)P2ARB1(RFC3)RFXA(GRK1)RNF6  
[RPL2]ATXN8OSGGC(SGC7)A1(SLC10A2)SLC15A1(SOX1)ITDP1TPP2TP1TRPC4(UCHL3)ZIC2(ZMYM2)JFTR88(STK24)CUL4A(TNFSF11)R2SCELSU  
CLA2(DLEU2;TSC2)D1PROZ(ARHGEP7)CDC16(CCN4)CLDN10(MTMR6)DCLK1(ZMYM5)ITGBL1(KL)TMPSF2(TM2B)MTRF1(UTP14)CNU58(TBC1D4)  
GPC6(FRY)MBNL2(FARP1)PAR6(SLC25A15)LHPL6(TRM13)USPL1(MRPS31)SPRY2(ABCC4)SAP18(DLEU1)TUBGCP3(N4BP2L2)PIBF1(OLF)M4(POSTN)TN  
FSF13B(CJ6)HSPH1(WASF3)SGT1(CNMD)SOX21(WB4)AKAP1(KLFL)E2XOSCB(RASA3)FNDCA3(DZP1)DIS3(MY16)PDS5B(MYCBP2)WVA(ZC3H1  
3)SPART1(LCH1)ATP1A(MCT2)M1TUS2(DOCK9)TGDSLITRKS5(FBXL3)SACSINTS6(LATS2)CAK2(P2)NUFIP1(SNORD102)NBEA(OXGR1)PCDH17(RGCC)  
MED4(NAC15)ALG5(VPS36)POLRID(CRYL1)PHF1(POMP)UFM1(ATPA2)IL7(D)NDFIP2(BVM)SOHLH2(TMC03)ENOX1(ARGLU)DCUN1D2(RCBTB  
1)NUDT15(GPAL)PPI(TNFRSF19)SPT20H(ANKRD10)RAB20NAXD(UGGT2)PCD2(CENP)THSD1(RNF7)CVS(TR2)SPRYD7(CO6)KLHL1(RBM26)XP04  
[PCDH20]UPF3A(MRPL57)SMIM2(POGLU2)CARSL(RNF219)NAA16(RNA)SEH2B(DHRS1)2(GRTP1)BORAR(BCNL)PROSER1(TDRD3)CDADC1(CAB39)LDI  
APH3(CDC70)COG3(SETDB2)KATNAL1(KBTBD7)SLITRK6(EBP4)TMT4(MED)AG(BHD13)ZIC5(GGACT)KBTBD6(STRD13)N4BP2L1(TEX30)EPST11  
ADPRHL1)SLITRK1(KCTD12)ARL11(WDFY2)N4BP2L2  
IT2(TEX29)LINC00284(CSNK1A)IL1RXFP2(TEX26)SLAIN1(PRR20A)SPACA7(RNF138)LINC00355(LINC00410)FAM216B(LACC1)LINC00330(LINC00343)H  
NRNP1L2(B3GL)CT(DGKH)CCDC122(GPR180)STOML3(COMMD6)UBE2L5(CLYBL)METTL21(CAMER2)USP12(MTF3)G5X1(ERIC)H6B(SPERT)DLEU7(FA  
M124A)LRRC63(EFF)AKMT1(SKA3)M1CUC2(SPAT1)3(LNX2)SLC25A30(ZHHC20)PAN3(NALCN)H86S3(DA0A)DA0A-ASI(FGF4-T1)FGF4-  
AS2(LINC00551)LINC00567(LINC00346)CHAMP1(SAH3)KCNRG(TMEM272)SLC46A3(UBAC2)LINC00550(LINC00347)C1QTN9(FREM2)NEK5(TMEM255)BKCTD4  
RASL1A(C1Q)TN9(B)SHSA2(NHLR3)SERP2(SERTM1)LINC00547(LINC00548)TUSC8(ATP1A)UN(MIR15A)MIR16-  
1(MIR17)MIR18A(MIR19A)MIR19B1(MIR20A)MIR92A1(MIR17)H(LINC00544)LINC00545(ALG11)MZT1(PCOTH)SNORA27(TSC22D1-  
AS1)MIR4500B(LINC00452)CCDC168(URAD)ZAR1(LINC00598)C3orf42(SERPINE3)LOC647264(GAS6-  
AS1)SNORA31(MIR621)MIR623(MIR623)LINC00460(FAM155A)CCDC169(PRR20B)PRR20C(PRR20D)PRR20E(LMOTDN)ACOD1(LOC100129307)LINC00462  
COL4A2-AS2(LINC00552)FKSG29(LINC00543)LINC00426(TRE-TTC2)1(TRN-GTT2-4)TRF-GAA1-5(TRE-TTC1-2)TPT1-AS1(LOC100288208)PAN3-  
AS1(DN)A3C-D1(TUBAC2-AS1)MCF2L-  
AS1(MIR1297)MIR1267(MIR759)MIR2276(MIR320D1)MIR4306(MIR3168)MIR3170(MIR4305)MIR3169(MIR3665)MIR3613(ANKRD10-T1)EDNRB-  
AS1(RBM26-AS1)SOX1-OT(LOC100506016)GAS6-DT1(LINC00540)SACS-AS1(LINC00327)TEX26-AS1(FRY-AS1)LINC00445(SPART-AS1)WVA8-  
AS1(INTS6-AS1)LINC00458(SOX21-AS1)LINC00402(C13orf46)CPB2-AS1(CDC169-SOHLH2)BIVM-  
ERCC5(MIR2681)MIR4501(MIR4500)MIR4704(MIR4502)MIR4705(MIR548X2)MIR4499(MIR4703)LINC00539(MIR5007)MIR5693(MIR5006)MIR548A(R)MIR54  
8AS(DOCK9-  
D1)LINC00554(LINC00557)LINC00561(LINC00564)LINC00566(LINC00562)PLUT(LINC00558)LINC00560(LINC00563)LINC00555(LINC00572)RBI-  
DT(MED4-AS1)GPC5-AS1(GPC5-AS2)GPC6-AS1(GPC6-AS2)LINC00297(CLYBL-AS2)PCDH9-AS2(GRTP1-AS1)STK24-AS1(USP12-AS1)USP12-AS2(FREM2-  
AS1)DLEU7-AS1(FGF4-AS1)HTR2A-AS1(PCDH9-AS1)PCDH9-AS4(DOCK9-AS1)MTUS2-AS1(LINC00331)LINC00332(LINC00333)ENOX1-  
AS2(LINC00351)LINC00353(LINC00358)LINC00364(LINC00365)LINC00366(LINC00379)LINC00381(LINC00392)LINC00393(LINC00395)LINC00398(LINC0  
0400)LINC00411(LINC00423)LINC00431(LINC00434)LINC00440(LINC00443)LINC00446(LINC00448)LINC00449(LINC00457)LINC00459(LINC00424)LINC0  
0559(LINC00571)CLDN10-AS1(DIAPH3-AS1)DIAPH3-AS2(COL4A2-AS1)ATP1A-AS1(NDFIP2-AS1)MYCBP2-AS1(RNF19-AS1)ARHGEP7-AS1(SPAT1A3-  
AS1)ARHGEP7-AS2(STRD13-AS1)RNA)SEH2B-AS1(SLC25A30-AS1)FAM155A-TT(SMIM2-TT)PCCA-AS1(NALCN-AS1)LINC00348(MYO16-  
AS1)LINC00359(LINC00621)LOC101060553(LINC00676)LINC00810(LINC02338)LINC00378(LINC02339)LMO7-  
AS1(LINC01069)LINC00382(LINC01049)LOC101927248(LOC101927284)LOC101927437(CLYBL-



49 GRCh38/hg38 13q12.11-34(chr13:19837395-114327173)x3

PAPPA1OX5APATP2A1ATP4B1ATP7B1BRC2A1K1F5(CDK8;CDX2)RCHT2;CLN5COL4A1COL4A2CPB2DACH1DCTGPR183EDNBRBEFN2ELF1E R...
SILAMP1LCP1LIGL4LMO7MAHE1L1SMA49M1PEPNEK3PABCP3PCCAICPDH8PCDH9POLU4E1DNAJ3R4P2A1RBI1RBI3REXAPGRK1RN6P...
R21A1TXN80SGGCSL7A1SLC10A2SLC15A1SOX11TFDP1TPP2TP11TRPCA4UHL3ZIC2ZMYM2JFT38STK24CU4A1TNFS11RS2SCEL/SU...
CLA2DEU2TSC22D1PROZARHGEF7CDCl6CCNA1CLDN10MTMR6DCL1K1ZMYM5ITGBL1K1TM9SF21TM2BMTRF1UTP14CINUP58TBC1D4...
GPC6FRYMBN12FARPI1PAR6SLC25A1SLHPL6TRIM13USPL1MRP531SPRY21ABCC4SAP1SDLEU1UTBGCPS3N4BP21PBF1OLF4POSTN1TN...
FSF13BGB6HSPH1WAF3SLGT1CNMD)SOX21WBP4AKAP1IKLF12EXOSC8RASA3FNDC3ADZPI1DIS3MYO16PDS5BMYCBP2VW8ZCH11...
3SPART1LRCH1ATP1A1MCT2L1MUS21DOCK91TGDSSLITRK51FBXL3SASINTS61ATS2CAKAP2NUFPI1NBEA1OXGR1PCDH17IRGCC...
MED4NAK1C15ALG5VPS36PRL1C1L1PFI11POAP1FM1J1T9A211TD1NDP2B1VM50H1E1TMC031ENOX1ARGL11DKL1ND12RCHT2H1ND15...
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51 GRCh38/hg38 13q14.11-34(chr13:40942298-114340331)x1 CNV not specified 13 40942298 - 114340331 148828 158579

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52 GRCh38/hg38 13q14.11-34(chr13:43219125-114327314)x3 CNV not specified 13 43219125 - 114327314 59891 74486

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53 GRCh38/hg38 13q14.11-34(chr13:44164751-114327173)x3 ATP4B|ATP7B|KLF5|RCBTB2|CLN5|COL4A1|COL4A2|CPB2|DACH1|DCT|GPR183|EDNRB|EFNB2|ERCC5|ESD|F7|F10|FGF14|GPC5|GAS6|GPR18|MLN|NR1G|T2P2|HTR2A|ING1|KIPNA3|IPOS|LAMP1|LCP1|LIG4|LMO7|NEK3|PCCA|PCDH8|PCDH9|POU4F1|DNAJC3|RAP2A|RB1|GRK1|ATXN808|SLC10A2|SLC15A1|SOX11|TFDP1|TPP2|TPP1|U|CHL3|ZIC2|STK24|CUL4A|JRS2|SCEL|SUCLA2|DLU2|TSC22D1|PBR2|ARHGFE7|CDC16|CLDN10|TGBL1|TM9SF2|TM2B|UTP14C|TBC1D4|GPC6|MBNL2|FARP1|LPAR6|TRIM13|SPRY2|ABCC4|DELU1|TUBGCP3|PIBF1|OLFMT4|TNFSF13B|SUGT1|CNMD|SOX21|KLF17|D|2RASA3|F|NDCA|DZP1|DHS1|MYO16|MYCBP2|ZCH13|LRCH1|ATP11A|MC2L|DOCK9|TGDSS|LTRK5|FBXL3|INTS6|CKAP2|NUPFI|OXGR1|PCDH17|MED4|V|PS6|PHF11|NDFIP2|BIVM|TMC03|ARGLU1|DCUN1D2|RCBTB1|NUTD15|GPALPPI|ANKRD10|BARB20|NAXD|UGGT2|PCD21|THSD1|CYSL|TR2|SPRYD7|K|HL1|IR|BM26|PCDH20|UPP3A|POGLU2|CARSD|RNF219|RNASEH2B|DHRS12|GRTP1|BORAR|B|CNBL|TDRD3|CDAD|C1|CAB39|DIAPH3|CCD70|COG3|SETDB2|SL|TRK6|EBPL1|TMT|C4|ABHD13|ZIC5|GGACT|TEX30|ADPRHL1|SL|TRK1|KCTD12|ARL11|WDFY2|TEX29S|AHN1|PRR20A|SPACA7|RNFI13B|LINC00355|LINC00410|LINC00330|LINC00343|HNRNPA1L2|GPR180|COMMD6|CLYBL|METTL21|C|ERICH6B|SPERT|DLEU7|FAM124A|L|RR6C3|SLC25A30|NALCN|HS6ST3|DAOA|DAOA-A|AS1|FGF14-T1|J|FGF14-AS2|LINC00551|LINC00567|LINC00346|CHAMP1|SI|AH3|KCNRG|TMEM272|U|BAC2|LINC00550|LINC00347|NEK5|TMEM255B|KCTD4|SERP2|TUSC8|ATP11A|U|N|MIR15A|MIR16-1|MIR17|MIR18A|MIR19A|MIR19B1|MIR20A|MIR92A1|MIR17HG|ALG11|MZT1|TSC22D1-AS1|MIR4500HG|LINC00452|CCDC168|C13orf42|SERPINE3|LOC647264|GAS6-AS1|SNORA31|MIR622|MIR623|LINC00460|FAM155A|PRR20B|PRR20C|PRR20D|PRR20E|LMO7DN|ACOD1|LOC100129307|LINC00462|COL4A2-AS1|LINC00552|FKSG29|TRE-TTC2-1|TRF-GAA1-5|TPT1-AS1|LOC100288208|DNAJC3-DT|UBAC2-AS1|MC2L-AS1|MIR1297|MIR1267|MIR759|MIR4306|MIR3170|MIR3169|MIR3665|MIR3613|ANKRD10-IT1|EDNRB-AS1|RBM26-AS1|SOX1-OT|LOC100506016|GAS6-DT|INTS6-AS1|LINC00458|SOX21-AS1|LINC00402|C13orf46|CPB2-AS1|BIVM-ERCC5|MIR2681|MIR4501|MIR4500|MIR4704|MIR4502|MIR4705|MIR548X2|MIR4703|MIR5007|MIR5693|MIR548A|MIR548AS|DOCK9-DT|LINC00554|LINC00557|LINC00561|LINC00564|LINC00562|LINC00558|LINC00560|LINC00563|LINC00565|RB1-DT|MED4-AS1|GPC5-AS1|GPC5-AS2|GPC6-AS1|GPC6-AS2|CLYBL-AS2|PCDH9-AS2|GRTP1-AS1|STK24-AS1|DELU1-AS1|FGF14-AS1|HTR2A-AS1|PCDH9-AS1|PCDH9-AS4|DOCK9-AS1|LINC00331|LINC00333|LINC00351|LINC00355|LINC00358|LINC00364|LINC00379|LINC00381|LINC00392|LINC00393|LINC00395|LINC00411|LINC00433|LINC00434|LINC00446|LINC00448|LINC00448|LINC00448|LINC00459|LINC00559|CLDN10-AS1|DIAPH3-AS1|DIAPH3-AS2|COL4A2-AS1|ATP11A-AS1|NDFIP2-AS1|MYCBP2-AS1|RNFB219-AS1|ARHGFE7-AS1|ARHGFE7-AS2|RNASEH2B-AS1|SLC25A30-AS1|FAM155A-IT1|PCCA-AS1|NALCN-AS1|LINC00348|MYO16-AS1|LINC00359|LOC101060553|LINC00676|LINC01080|LINC02338|LINC00378|LINC02339|LMO7-AS1|LINC01069|LINC00382|LINC01049|LOC101927248|LOC101927284|LOC101927437|CLYBL-AS1|LINC00368|LINC00354|LINC01070|LOC101928730|LINC01043|LOC101928844|LOC101929259|LINC01198|CFAP97D2|SUCLA2-AS1|LOC101929657|LINC00380|LINC00397|LINC00373|LINC00373|MIR8075|MIR8079|LINC01065|LOC102723968|LINC01038|LINC01232|LINC02333|LINC01442|LINC00456|LINC00383|DELU1-AS1|LINC00377|LINC01068|LINC01055|LINC01075|LINC01044|LINC00366|LINC00399|LMO7DN-IT1|LINC01309|LINC00431|LINC00375|LINC00396|LINC01039|LINC00376|SCEL-AS1|F10-AS1|LOC105370203|LINC00451|LINC01052|LINC00373|LINC01040|LINC02336|LOC105370331|LINC00370|LOC105370361|LOC105370362|LINC02337|LOC105376684|LINC01047|LINC00374|LINC00430|LINC01078|LINC00407|LINC01074|LINC00449|SNORA107|SETDB2-PHF1|LOC107457599|LOC107882127|LOC107882129|LINC00444|LOC107992391|LOC109461478|SNORA31|BSNORD3|BSNORD13|GLO1|10008580|LOC110120827|LOC110120828|LOC110120829|LOC110120830|LOC110120831|LOC110120832|LOC110120833|LOC110120834|LOC110120843|LOC110120855|LOC110120881|LOC110120891|LOC110120897|LOC110120909|LOC110120930|LOC110120933|LOC110120945|LOC110120946|LOC110120950|LOC110121336|LOC110121360|LOC110121375|LOC110121473|LOC111365190|LOC111429622|LOC112268114

54 GRCh38/hg38 13q14.12-34(chr13:44733046-114327173)x3 ATP4B|ATP7B|KLF5|RCBTB2|CLN5|COL4A1|COL4A2|CPB2|DACH1|DCT|GPR183|EDNRB|EFNB2|ERCC5|ESD|F7|F10|FGF14|GPC5|GAS6|GPR18|MLN|NR1G|T2P2|HTR2A|ING1|KIPNA3|IPOS|LAMP1|LCP1|LIG4|LMO7|NEK3|PCCA|PCDH8|PCDH9|POU4F1|DNAJC3|RAP2A|RB1|GRK1|ATXN808|SLC10A2|SLC15A1|SOX11|TFDP1|TPP2|TPP1|U|CHL3|ZIC2|STK24|CUL4A|JRS2|SCEL|SUCLA2|DLU2|PROZ2|ARHGFE7|CDC16|CLDN10|TGBL1|TM9SF2|TM2B|UTP14C|TBC1D4|GPC6|MBNL2|FARP1|LPAR6|TRIM13|SPRY2|ABCC4|DELU1|TUBGCP3|PIBF1|OLFMT4|TNFSF13B|SUGT1|CNMD|SOX21|KLF17|D|2RASA3|F|NDCA|DZP1|DHS1|MYO16|MYCBP2|ZCH13|LRCH1|ATP11A|MC2L|DOCK9|TGDSS|LTRK5|FBXL3|INTS6|CKAP2|NUPFI|OXGR1|PCDH17|MED4|V|PS6|PHF11|NDFIP2|BIVM|TMC03|ARGLU1|DCUN1D2|RCBTB1|NUTD15|GPALPPI|ANKRD10|BARB20|NAXD|UGGT2|PCD21|THSD1|CYSL|TR2|SPRYD7|K|HL1|IR|BM26|PCDH20|UPP3A|POGLU2|CARSD|RNF219|RNASEH2B|DHRS12|GRTP1|BORAR|B|CNBL|TDRD3|CDAD|C1|CAB39|DIAPH3|CCD70|COG3|SETDB2|SL|TRK6|EBPL1|TMT|C4|ABHD13|ZIC5|GGACT|TEX30|ADPRHL1|SL|TRK1|KCTD12|ARL11|WDFY2|TEX29S|SLAIN|PRR20A|SPACA7|RNFI13B|LINC00355|LINC00410|LINC00330|LINC00343|HNRNPA1L2|GPR180|COMMD6|CLYBL|METTL21|C|ERICH6B|SPERT|DLEU7|FAM124A|L|RR6C3|SLC25A30|NALCN|HS6ST3|DAOA|DAOA-A|AS1|FGF14-T1|J|FGF14-AS2|LINC00551|LINC00567|LINC00346|CHAMP1|SI|AH3|KCNRG|TMEM272|U|BAC2|LINC00550|LINC00347|NEK5|TMEM255B|KCTD4|ATP11A|U|N|MIR15A|MIR16-1|MIR17|MIR18A|MIR19A|MIR19B1|MIR20A|MIR92A1|MIR17HG|ALG11|MZT1|MIR4500HG|LINC00452|CCDC168|C13orf42|SERPINE3|LOC647264|GAS6-AS1|SNORA31|MIR622|MIR623|LINC00460|FAM155A|PRR20B|PRR20C|PRR20D|PRR20E|LMO7DN|ACOD1|LOC100129307|LINC00462|COL4A2-AS1|LINC00552|FKSG29|TRE-TTC2-1|TRF-GAA1-5|TPT1-AS1|LOC100288208|DNAJC3-DT|UBAC2-AS1|MC2L-AS1|MIR1297|MIR1267|MIR759|MIR4306|MIR3170|MIR3169|MIR3665|MIR3613|ANKRD10-IT1|EDNRB-AS1|RBM26-AS1|SOX1-OT|LOC100506016|GAS6-DT|INTS6-AS1|LINC00458|SOX21-AS1|LINC00402|C13orf46|CPB2-AS1|BIVM-ERCC5|MIR2681|MIR4501|MIR4500|MIR4704|MIR4502|MIR4705|MIR548X2|MIR4703|MIR5007|MIR5693|MIR548A|MIR548AS|DOCK9-DT|LINC00554|LINC00557|LINC00561|LINC00564|LINC00562|LINC00558|LINC00560|LINC00563|LINC00565|RB1-DT|MED4-AS1|GPC5-AS1|GPC5-AS2|GPC6-AS1|GPC6-AS2|CLYBL-AS2|PCDH9-AS2|GRTP1-AS1|STK24-AS1|DELU1-AS1|FGF14-AS1|HTR2A-AS1|PCDH9-AS1|PCDH9-AS4|DOCK9-AS1|LINC00331|LINC00333|LINC00351|LINC00355|LINC00358|LINC00364|LINC00379|LINC00381|LINC00392|LINC00393|LINC00395|LINC00411|LINC00433|LINC00434|LINC00446|LINC00448|LINC00448|LINC00448|LINC00459|LINC00559|CLDN10-AS1|DIAPH3-AS1|DIAPH3-AS2|COL4A2-AS1|ATP11A-AS1|NDFIP2-AS1|MYCBP2-AS1|RNFB219-AS1|ARHGFE7-AS1|ARHGFE7-AS2|RNASEH2B-AS1|SLC25A30-AS1|FAM155A-IT1|PCCA-AS1|NALCN-AS1|LINC00348|MYO16-AS1|LINC00359|LOC101060553|LINC00676|LINC01080|LINC02338|LINC00378|LINC02339|LMO7-AS1|LINC01069|LINC00382|LINC01049|LOC101927248|LOC101927284|LOC101927437|CLYBL-AS1|LINC00368|LINC00354|LINC01070|LOC101928730|LINC01043|LOC101928844|LOC101929259|LINC01198|CFAP97D2|SUCLA2-AS1|LOC101929657|LINC00380|LINC00397|LINC00373|LINC00373|MIR8075|MIR8079|LINC01065|LOC102723968|LINC01038|LINC01232|LINC02333|LINC01442|LINC00456|LINC00383|DELU1-AS1|LINC00377|LINC01068|LINC01055|LINC01075|LINC01044|LINC00366|LINC00399|LMO7DN-IT1|LINC01309|LINC00431|LINC00375|LINC00396|LINC01039|LINC00376|SCEL-AS1|F10-AS1|LOC105370203|LINC00451|LINC01052|LINC00373|LINC01040|LINC02336|LOC105370331|LINC00370|LOC105370361|LOC105370362|LINC02337|LOC105376684|LINC01047|LINC00374|LINC00430|LINC01078|LINC00407|LINC01074|LINC00449|SNORA107|SETDB2-PHF1|LOC107457599|LOC107882127|LOC107882129|LINC00444|LOC107992391|LOC109461478|SNORA31|BSNORD3|BSNORD13|GLO1|10008580|LOC110120827|LOC110120828|LOC110120829|LOC110120830|LOC110120831|LOC110120832|LOC110120833|LOC110120834|LOC110120843|LOC110120855|LOC110120881|LOC110120891|LOC110120897|LOC110120909|LOC110120930|LOC110120933|LOC110120945|LOC110120946|LOC110120950|LOC110121336|LOC110121360|LOC110121375|LOC110121473|LOC111365190|LOC111429622|LOC112268114

55	GRCh38/hg38 13q22.1-34(chr13:74345951-114327314)x3	ATP4B CLN5 COL4A1 COL4A2 DCT GPR183 EDNRB EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 MO7 PCCA POU4F1 DN A C3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDCA16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 TNFSF13B SOX21 IRASA3 DZIP1 MYO16 ATP11A MCF2L1  DOCK9 TGDS SLITRK5 OXGR1 NDFIP2 BIVM TMCO3 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD UGGT2 PCID2 RBM2 6 UPF3A POGLUT2 CAR52 GRTP1 SLITRK6 TMTCA ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 R NF113B LINC00410 LINC00343 GPR180 CLYBL METTL21 C NALCN HS6ST3 DAAO DAAO-A-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 LINC00347 TMEM255B ATP11A UN MIR17 MIR18A MIR19A MIR19B MIR20A MIR92A1 MIR1 7HG MIR4500HG LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A LMO7 DNI ACOD1 LOC10129307 COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DN AJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 IRBM26-AS1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4500 MIR4502 MIR4705 MIR548R MIR548AS DOCK9- DT LINC00554 LINC00557 LINC00564 LINC00560 LINC00565 GPC5-AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL-AS2 GRTP1-AS1 STK24- AS1 JFGF14-AS1 DOCK9- AS1 LINC00333 LINC00351 LINC00379 LINC00381 LINC00411 LINC00433 LINC00440 LINC00443 LINC00446 LINC00454 LINC0 0559 CLDN10-AS1 COL4A2-AS1 ATP11A-AS1 NDFIP2-AS1 MYO16-AS1 RN7F19-AS1 ARHGEF7-AS1 ARHGEF7-AS2 FAM155A-IT1 PCCA- AS1 NALCN-AS1 MYO16-AS1 LINC00359 LOC101060553 LINC00676 LINC01080 LINC00382 LINC01049 LOC101927248 LOC101927437 CLYBL- AS1 LINC01069 LINC00382 LINC01049 LOC101927248 LOC101927284 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 LINC00397 MIR8073 MIR8075 LINC01038 LINC 001232 LINC00456 LINC00377 LINC01068 LINC01044 LINC00363 LINC00399 LMO7DN- IT1 LINC01309 LINC00431 LINC00375 LINC00396 LINC01039 SCEL-AS1 F10- AS1 LINC00373 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LINC01047 LINC00430 LINC 01078 LINC00449 SNORA107 LOC107882129 LOC107992391 SNORD31 SNORD133 GL LOC110008580 LOC110120855 LOC110120881 LOC C110120930 LOC110120933 LOC110121336 LOC110121375 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	74345951 - 114327314	59899	74494
56	GRCh38/hg38 13q31.1-34(chr13:78964223-114340331)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 JFGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDCA16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 TNFSF13B SOX21 IRASA3 DZIP1 MYO16 ATP11A MCF2L1  DOCK9 TGDS SLITRK5 OXGR1 NDFIP2 BIVM TMCO3 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD UGGT2 PCID2 RBM2 6 UPF3A POGLUT2 CAR52 GRTP1 SLITRK6 TMTCA ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 R NF113B LINC00410 LINC00343 GPR180 CLYBL METTL21 C NALCN HS6ST3 DAAO DAAO-A-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A UN MIR17 MIR18A MIR19A MIR19B MIR20A MIR92A1 MIR1 7HG MIR4500HG LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DN AJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 IRBM26-AS1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4500 MIR4502 MIR4705 MIR548R MIR548AS DOCK9- DT LINC00554 LINC00557 LINC00564 LINC00560 LINC00565 GPC5-AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL- AS2 GRTP1-AS1 STK24-AS1 JFGF14-AS1 DOCK9- AS1 LINC00333 LINC00351 LINC00379 LINC00411 LINC00433 LINC00440 LINC00443 LINC00446 LINC00454 LINC00559 C LDN10-AS1 COL4A2-AS1 ATP11A-AS1 NDFIP2-AS1 ARHGEF7-AS1 ARHGEF7-AS2 FAM155A-IT1 PCCA-AS1 NALCN- AS1 MYO16- AS1 LINC00359 LOC101060553 LINC00676 LINC01080 LINC00382 LINC01049 LOC101927248 LOC101927284 LOC10192743 7 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 LINC00397 MIR8 073 MIR8075 LINC01038 LINC01232 LINC00456 LINC00377 LINC01068 LINC01044 LINC00363 LINC00399 LINC01309 LINC 0043 LINC00375 LINC00396 LINC01039 LINC01054 F10- AS1 LINC00373 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC10537668 4 LINC01047 LINC00430 LINC00449 SNORA107 LOC107992391 SNORD31 SNORD133 GL LOC110008580 LOC110120855 LO C110120881 LOC110120930 LOC110120933 LOC110121336 LOC110121375 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	78964223 - 114340331	152729	162480
57	GRCh38/hg38 13q31.1-34(chr13:78999318-114327106)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 JFGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDCA16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 SPRY2 ABCC4 TUBGCP3 TNFSF13B SOX21 IRASA3 DZIP1 MYO16 ATP11A MCF2L1  DOCK9 TGDS SLITRK5 OXGR1 NDFIP2 BIVM TMCO3 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD UGGT2 PCID2 RBM2 6 UPF3A POGLUT2 CAR52 GRTP1 SLITRK6 TMTCA ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPACA7 R NF113B LINC00410 LINC00343 GPR180 CLYBL METTL21 C NALCN HS6ST3 DAAO DAAO-A-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A UN MIR17 MIR18A MIR19A MIR19B MIR20A MIR92A1 MIR1 7HG MIR4500HG LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DN AJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 IRBM26-AS1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4500 MIR4502 MIR4705 MIR548R MIR548AS DOCK9- DT LINC00554 LINC00557 LINC00564 LINC00560 LINC00565 GPC5-AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL- AS2 GRTP1-AS1 STK24-AS1 JFGF14-AS1 DOCK9- AS1 LINC00333 LINC00351 LINC00379 LINC00411 LINC00433 LINC00440 LINC00443 LINC00446 LINC00454 LINC00559 C LDN10-AS1 COL4A2-AS1 ATP11A-AS1 NDFIP2-AS1 ARHGEF7-AS1 ARHGEF7-AS2 FAM155A-IT1 PCCA-AS1 NALCN- AS1 MYO16- AS1 LINC00359 LOC101060553 LINC00676 LINC01080 LINC00382 LINC01049 LOC101927248 LOC101927284 LOC10192743 7 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 LINC00397 MIR8 073 MIR8075 LINC01038 LINC01232 LINC00456 LINC00377 LINC01068 LINC01044 LINC00363 LINC00399 LINC01309 LINC 0043 LINC00375 LINC00396 LINC01039 F10- AS1 LINC00373 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC10537668 4 LINC01047 LINC00430 LINC00449 SNORA107 LOC107992391 SNORD31 SNORD133 GL LOC110008580 LOC110120855 LO C110120881 LOC110120930 LOC110120933 LOC110121336 LOC110121375 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	78999318 - 114327106	149780	159531

58	GRCh38/hg38 13q31.1-34(chr13:83288131-114342258)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPOS LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RAS3 DZIP1 MYO16 ATP11A MCFL2 DOCK9  TGDS SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CAR S2 GRTP1 SLITRK6 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 SLITRK1 TEX29 SPAC7 RNFI13B LINC00410 LINC 00343 GPR180 CLYBL METTL21C NALCN HS6T3 DAOA DAOA-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B MIR2 0A MIR92A1 MIR17HG MIR4500 HGL LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DNAJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4500 MIR4502 MIR4705 MIR548AR MIR548AS DOCK9- DT LINC00554 LINC00557 LINC00560 LINC00565 GPC5-AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL-AS2 GRTP1- AS1 STK24-AS1 FGF14-AS1 DOCK9- AS1 LINC00333 LINC00351 LINC00353 LINC00379 LINC00411 LINC00433 LINC00440 LINC00443 LINC00454 LINC00559 C LDN10-AS1 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 PCCA-AS1 NALCN-AS1 MYO16- AS1 LINC00359 LOC101060553 LINC00676 LINC01049 LOC101927248 LOC101927284 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 LINC00397 MIR8 073 MIR8075 LINC01232 LINC00456 LINC01044 LINC00363 LINC00399 LINC01309 LINC00431 LINC00375 LINC00396 LINC 01039 LINC01054 F10- AS1 LINC00373 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC10537668 4 LINC01047 LINC00430 LINC00449 SNORA107 LOC107992391 SNORD31B SNORD13G LOC110008580 LOC110120855 LO C110120881 LOC110120930 LOC110120933 LOC110121336 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	83288131 - 114342258	153403	163154
59	GRCh38/hg38 13q31.1-34(chr13:86788927-114340331)x1	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPOS LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RAS3 DZIP1 MYO16 ATP11A MCFL2 DOCK9  TGDS SLITRK5 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CAR S2 GRTP1 TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPAC7 RNFI13B LINC00410 LINC00343 GPR180 CLY BL METTL21C NALCN HS6T3 DAOA DAOA-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B MIR2 0A MIR92A1 MIR17HG MIR4500 HGL LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DNAJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4500 MIR4502 MIR4705 MIR548AR MIR548AS DOCK9- DT LINC00554 LINC00557 LINC00560 LINC00565 GPC5-AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL-AS2 GRTP1- AS1 STK24-AS1 FGF14-AS1 DOCK9- AS1 LINC00353 LINC00379 LINC00411 LINC00433 LINC00440 LINC00443 LINC00454 LINC00559 CLDN10-AS1 COL4A2- AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 PCCA-AS1 NALCN-AS1 MYO16- AS1 LINC00359 LOC101060553 LINC00676 LINC01049 LOC101927248 LOC101927284 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 LINC00397 MIR8 073 MIR8075 LINC01232 LINC00456 LINC01044 LINC00363 LINC00399 LINC01309 LINC00431 LINC00396 LINC01039 LINC 01054 F10- AS1 LINC00373 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC10537668 4 LINC01047 LINC00430 LINC00449 LOC107992391 SNORD31B SNORD13G LOC110008580 LOC110120855 LOC110120881  LOC110120930 LOC110120933 LOC110121336 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	86788927 - 114340331	149290	159041
60	GRCh38/hg38 13q31.2-34(chr13:88937651-114327173)x3	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7 F10 FGF14 GPC5 GAS6 GPR18 ING1 IPOS LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RAS3 DZIP1 MYO16 ATP11A MCFL2 DOCK9  TGDS OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CAR S2 GRTP1  TMC4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPAC7 RNFI13B LINC00410 LINC00343 GPR180 CLYBL MET TL21C NALCN HS6T3 DAOA DAOA-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A AUN MIR17 MIR18A MIR19A MIR19B MIR2 0A MIR92A1 MIR17HG MIR4500 HGL LINC00452 CCDC168 GAS6-AS1 MIR622 MIR623 LINC00460 FAM155A COL4A2- AS2 LINC00552 FKSG29 TRF-GAA1-5 DNAJC3-DT UBAC2-AS1 MCF2L-AS1 MIR1267 MIR4306 MIR3170 ANKRD10- IT1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4501 MIR4502 MIR4705 MIR548AR MIR548AS DOCK9-DT LINC00554 LINC00557 LINC00565 GPC5- AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL-AS2 GRTP1-AS1 STK24-AS1 FGF14-AS1 DOCK9- AS1 LINC00353 LINC00379 LINC00411 LINC00440 LINC00443 LINC00454 LINC00559 CLDN10-AS1 COL4A2-AS1 ATP11A- AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 PCCA-AS1 NALCN-AS1 MYO16- AS1 LINC00359 LOC101060553 LINC00676 LINC01049 LOC101927248 LOC101927284 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 LINC00380 MIR8073 MIR807 5 LINC01232 LINC00456 LINC01044 LINC00363 LINC00399 LINC01309 LINC00431 LINC00396 LINC01039 F10- AS1 LINC01040 LINC02336 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LINC0104 7 LINC00449 LOC107992391 SNORD31B SNORD13G LOC110008580 LOC110120855 LOC110120881 LOC110120930 LOC11 0120933 LOC110121336 LOC110121473 LOC111429622 LOC112268114	CNV	not specified	13	88937651 - 114327173	148008	157759



61	GRCh38/hg38 13q31.3-34(chr13:91366227-114327314)x1	ATP4B COL4A1 COL4A2 DCT GPR183 EFNB2 ERCC5 F7F10 FGF14 GPC5 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA D NAJC3 RAP2A GRK1 SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 CLDN10 IT GBL1 TM9SF2 GPC6 MBNL2 FARP1 ABCC4 TUBGCP3 TNFSF13B SOX21 RASA3 DZIP1 MYO16 ATP11A MCF2L DOCK9  TGDS OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD UGGT2 PCID2 UPF3A POGLUT2 CARS2 GRTP 1 TMTc4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNF113B LINC00343 GPR180 CLYBL METTL21 CNAL CN HS6T3 DAAO DAAO-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 MIR623 LINC00460 FAM155A COL4A2-AS2 LINC00552 FKSG29 TRF-GAA1-5 DNJC3-DT UBAC2-AS1 MCF2L- AS1 MIR1267 MIR4306 MIR3170 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6-DT SOX21-AS1 C13orf46 BIVM- ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR MIR548AS DOCK9-DT LINC00554 LINC00557 LINC00565 GPC5- AS1 GPC5-AS2 GPC6-AS1 GPC6-AS2 CLYBL-AS2 GRTP1-AS1 STK24-AS1 FGF14-AS1 DOCK9- AS1 LINC00411 LINC00443 LINC00454 CLDN10-AS1 COL4A2-AS1 ATP11A-AS1 ARHGEF7-AS1 ARHGEF7-AS2 FAM155A- IT1 PCCA-AS1 NALCN-AS1 MYO16- AS1 LINC00359 LINC01060553 LINC00676 LOC101927248 LOC101927284 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 MIR8073 MIR8075 LINC0123 2 LINC00456 LINC01044 LINC00363 LINC00399 LINC01309 LINC00431 LINC00396 LINC01039 F10- AS1 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LINC00449 LOC107992391 SNOR D31B SNORD13G LOC110008580 LOC110120855 LOC110120881 LOC110120930 LOC110120933 LOC110121336 LOC110121 473 LOC111429622 LOC112268114	CNV	not specified	13	91366227 - 114327314	57680	72275
62	GRCh38/hg38 13q32.1-34(chr13:95744855-110863818)x3	COL4A1 COL4A2 GPR183 EFNB2 ERCC5 F7F10 FGF14 GPR18 ING1 IPO5 LIG4 PCCA DNAJC3 RAP2A SLC10A2 SLC15A1 TPP2  ZIC2 STK24 IRS2 ITGBL1 TM9SF2 MBNL2 FARP1 TNFSF13B MYO16 DOCK9 OXGR1 BIVM ARGLU1 RAB20 NAXD UGG T2 POGLUT2 CARS2 TMTc4 ABHD13 ZIC5 GGACT TEX30 RNF113B LINC00343 CLYBL METTL21 CNALCN HS6T3 DA O DAAO-AS1 FGF14-IT1 FGF14-AS2 LINC00551 LINC00567 UBAC2 CCDC168 MIR623 LINC00460 FAM155A COL4A2- AS2 FKSG29 UBAC2-AS1 MIR1267 MIR4306 MIR3170 BIVM-ERCC5 MIR2681 MIR4501 MIR4705 DOCK9- DT LINC00554 CLYBL-AS2 STK24-AS1 FGF14-AS1 DOCK9-AS1 LINC00411 LINC00443 COL4A2-AS1 FAM155A- IT1 PCCA-AS1 NALCN-AS1 MYO16-AS1 LINC00359 LINC00676 LOC101927437 CLYBL- AS1 MIR8073 LINC01232 LINC00456 LINC00399 LINC01309 LINC00396 LINC01039 LOC105370333 LINC00370 LOC105370 361 LOC105370362 LOC105376684 LINC00449 LOC107992391 SNORD31B LOC110008580 LOC110120930 LOC110121473 L OC111429622	CNV	not specified	13	95744855 - 110863818	150125	159876
63	GRCh38/hg38 13q32.1-34(chr13:96745059-114327106)x3	ATP4B COL4A1 COL4A2 GPR183 EFNB2 ERCC5 F7F10 FGF14 GAS6 GPR18 ING1 IPO5 LAMP1 LIG4 PCCA RAP2A GRK1  SLC10A2 SLC15A1 SOX1 TFDP1 TPP2 ZIC2 STK24 CUL4A IRS2 PROZ ARHGEF7 CDC16 ITGBL1 TM9SF2 MBNL2 FARP1  TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L DOCK9 OXGR1 BIVM TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB 20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMTc4 ABHD13 ZIC5 GGACT TEX30 ADPRHL1 TEX29 SPACA7 RNF11 3B LINC00343 CLYBL METTL21 CNALCN HS6T3 DAAO DAAO-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 UBAC2 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 MIR623 LINC00460 FAM155A COL4A2-AS2 LINC00552 FKSG29 UBAC2-AS1 MCF2L- AS1 MIR1267 MIR4306 MIR3170 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6-DT C13orf46 BIVM- ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR DOCK9-DT LINC00554 LINC00565 CLYBL-AS2 GRTP1-AS1 STK24- AS1 FGF14-AS1 DOCK9-AS1 LINC00411 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGEF7-AS1 ARHGEF7- AS2 FAM155A-IT1 PCCA-AS1 NALCN-AS1 MYO16-AS1 LINC00359 LINC01060553 LINC00676 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 MIR8073 MIR8075 LINC0123 2 LINC00456 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 LINC01039 F10- AS1 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LINC00449 LOC107992391 SNOR D31B LOC110008580 LOC110120930 LOC110121336 LOC110121473 LOC111429622	CNV	not specified	13	96745059 - 114327106	150277	160028
64	GRCh38/hg38 13q32.3-34(chr13:100039860-114327173)x3	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 PCCA GRK1 SLC10A2 SOX1 TFDP1 TPP2  CUL4A IRS2 PROZ ARHGEF7 CDC16 ITGBL1 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARG L1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMTc4 ABHD13 GGACT TEX30 ADPRH L1 TEX29 SPACA7 LINC00343 METTL21 CNALCN DAAO DAAO-AS1 FGF14-IT1 FGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 MIR623 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6- DT C13orf46 BIVM-ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00565 GRTP1-AS1 FGF14- AS1 LINC00411 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGEF7-AS1 ARHGEF7-AS2 FAM155A-IT1 PCCA- AS1 NALCN-AS1 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 M IR8073 MIR8075 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 F10- AS1 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 SNORD31B LOC 110120930 LOC110121336 LOC110121473	CNV	not specified	13	100039860 - 114327173	59924	74519

65	GRCh38/hg38 13q32.3-34(chr13:99472316-114293545)x3	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 TPP2 CNV  ZIC2 CUL4A IRS2 PROZ ARHGEF7 CDC16 TUBG1 TM9SF2 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM  TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 TMTCT4 ABHD13 ZIC5 GGA C TEX30 ADPRHL1 TEX29 SPACA7 LINC00343 CLYBL METTL2 C NALCN DAOA DAOA-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 MIR4306 ANKRD10-IT1 SOX1- OT LOC100506016 GAS6-DT C3orf46 BIVM- ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00554 LINC00565 CLYBL-AS2 GRTP1-AS1 JFGF14- AS1 LINC00443 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 PCCA- AS1 NALCN-AS1 MYO16-AS1 LOC101060553 LINC00676 LOC101927437 CLYBL- AS1 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 MIR8073 MIR8075 LINC0123 2 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 LINC01039 F10- AS1 LOC105370333 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LINC00449 LOC107992391 SNOR D31B LOC110008580 LOC110120930 LOC110121336 LOC110121473	not specified	13	99472316 - 114293545	59921	74516
66	GRCh38/hg38 13q33.1-34(chr13:101537045-114327173)x1	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 TPP2 CNV A IRS2 PROZ ARHGFE7 CDC16 TUBG1 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 D CUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 LINC C00343 METTL2 C DAOA DAOA-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6- DT C3orf46 BIVM-ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00565 GRTP1-AS1 JFGF14- AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 M IR8073 MIR8075 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 F10- AS1 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 SNORD31B LOC110120930 LOC 110121336 LOC110121473	not specified	13	101537045 - 114327173	57684	72279
67	GRCh38/hg38 13q33.1-34(chr13:101762788-114340285)x3	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 TPP2 CNV A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2  ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 LINC00343  METTL2 C DAOA DAOA-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6- DT C3orf46 BIVM-ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00565 GRTP1-AS1 JFGF14- AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 M IR8073 MIR8075 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 LINC01054 F10- AS1 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 SNORD31B LOC110120930 LOC 110121336 LOC110121473	not specified	13	101762788 - 114340285	152824	162575
68	GRCh38/hg38 13q33.1-34(chr13:101868708-114293545)x3	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 TPP2 CNV A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2  ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 LINC00343  METTL2 C DAOA DAOA-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6- DT C3orf46 BIVM-ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00565 GRTP1-AS1 JFGF14- AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 M IR8073 MIR8075 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 LINC01054 F10- AS1 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 SNORD31B LOC110120930 LOC 110121336 LOC110121473	not specified	13	101868708 - 114293545	147642	157393
69	GRCh38/hg38 13q33.1-34(chr13:102114025-114327173)x1	ATP4B COL4A1 COL4A2 EFNB2 ERCC5 F7F10 FGF14 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 TPP2 CNV A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L BIVM TMC03 ARGLU1 DCUN1D2  ANKRD10 RAB20 NAXD PCID2 UPF3A POGLUT2 CARS2 GRTP1 ABHD13 TEX30 ADPRHL1 TEX29 SPACA7 LINC00343  METTL2 C DAOA DAOA-AS1 JFGF14-IT1 JFGF14- AS2 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 CCDC168 GAS6- AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LOC100506016 GAS6- DT C3orf46 BIVM-ERCC5 MIR2681 MIR4502 MIR4705 MIR548AR LINC00565 GRTP1-AS1 JFGF14-AS1 LINC00443 LINC00454 COL4A2- AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2 M IR8073 MIR8075 LINC01044 LINC00399 LINC01309 LINC00431 LINC00396 F10- AS1 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 SNORD31B LOC110120930 LOC 110121336 LOC110121473	not specified	13	102114025 - 114327173	57685	72280

70	GRCh38/hg38 13q33.1-34(chr13:102883322-114340331)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SLC10A2 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC01309 LINC00431 LINC00396 LINC01054 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110120930 LOC110121336 LOC110121473	CNV	not specified	13	102883322 - 114340331	148757	158508
71	GRCh38/hg38 13q33.1-34(chr13:103914488-110857896)x3	COL4A1 COL4A2 EFNB2 ING1 LIG4 IRS2 TNFSF13B MYO16 ARGLU1 RAB20 NAXD CAR2 ABHD13 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00460 FAM155A COL4A2-AS2 MIR1267 LINC00443 COL4A2-AS1 FAM155A-IT1 MYO16-AS1 LINC00676 MIR8073 LINC00399 LINC00396 LINC00370 LINC105370361 LINC105370362 LINC105376684 LINC107992391 SNORD31B LOC110120930 LOC110121473	CNV	not specified	13	103914488 - 110857896	155034	164788
72	GRCh38/hg38 13q33.2-34(chr13:104461586-114327173)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110120930 LOC110121336 LOC110121473	CNV	not specified	13	104461586 - 114327173	57709	72304
73	GRCh38/hg38 13q33.2-34(chr13:104698508-114327173)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110120930 LOC110121336 LOC110121473	CNV	not specified	13	104698508 - 114327173	57710	72305
74	GRCh38/hg38 13q33.2-34(chr13:104968135-114340331)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC00431 LINC00396 LINC01054 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110120930 LOC110121336 LOC110121473	CNV	not specified	13	104968135 - 114340331	155263	165017
75	GRCh38/hg38 13q33.2-34(chr13:105423935-114342258)x3	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 DAOA DAOA-AS1 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC00431 LINC00396 LINC01054 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110121336	CNV	not specified	13	105423935 - 114342258	155489	165243
76	GRCh38/hg38 13q33.2-34(chr13:105571072-114327314)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHG EF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L TMC03 ARGLU1 DCUN1D2 ANKRD10 RAB20 NAXD PCID2 UPF3A CAR2 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00343 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC100506016 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7-AS1 ARHGFE7-AS2 FAM155A-IT1 MYO16-AS1 LINC101060553 LINC00676 LINC00368 LINC00354 LINC101070 LINC101928730 LINC101043 LINC101928841 CFAP97D2 MIR8073 MIR8075 LINC101044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC105370361 LINC105370362 LINC02337 LINC105376684 LINC107992391 SNORD31B LOC110121336	CNV	not specified	13	105571072 - 114327314	57711	72306

77	GRCh38/hg38	13q33.2-34(chr13:105861075-114342258)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 FAM155A-IT1 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 LINC01054 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 SNORD31B LOC110121336	CNV	not specified	13	105861075 - 114342258	151756	161507
78	GRCh38/hg38	13q33.2-34(chr13:106043720-110366226)x1	COL4A1 COL4A2 EFNB2 LIG4 IRS2 TNFSF13B MYO16 ARGLU1 ABHD13 LINC00551 LINC00460 FAM155A MIR1267 LINC00443 FAM155A-IT1 MYO16-AS1 LINC00676 MIR8073 LINC00399 LINC00396 LINC00370 LINC0105370361 LINC0107992391 SNORD31B	CNV	not specified	13	106043720 - 110366226	57712	72307
79	GRCh38/hg38	13q33.2-34(chr13:106157165-114327173)x1	ATP4B COL4A1 COL4A2 EFNB2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 ARGLU1 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00551 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 LINC00460 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 FAM155A-IT1 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 SNORD31B LOC110121336	CNV	not specified	13	106157165 - 114327173	57471	72066
80	GRCh38/hg38	13q33.3-34(chr13:107075477-114340331)x1	ATP4B COL4A1 COL4A2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 FAM155A-IT1 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 LINC01054 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 SNORD31B LOC110121336	CNV	not specified	13	107075477 - 114340331	148614	158365
81	GRCh38/hg38	13q33.3-34(chr13:107168805-114327314)x1	ATP4B COL4A1 COL4A2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 FAM155A COL4A2-AS2 LINC00552 MCF2L-AS1 MIR1267 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 FAM155A-IT1 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 SNORD31B LOC110121336	CNV	not specified	13	107168805 - 114327314	57713	72308
82	GRCh38/hg38	13q33.3-34(chr13:107708655-112101112)x1	COL4A1 COL4A2 ING1 LIG4 SOX1 IRS2 ARHGGEF7 TNFSF13B MYO16 ANKRD10 AB20 NAXD CAR32 ABHD13 TEX29 LINC00567 LINC00346 FAM155A COL4A2-AS2 ANKRD10-IT1 SOX1-OT COL4A2-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 FAM155A-IT1 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 MIR8073 LINC00399 LINC00431 LINC00396 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 LINC0110121336	CNV	not specified	13	107708655 - 112101112	152966	162717
83	GRCh38/hg38	13q33.3-34(chr13:107918132-114327173)x1	ATP4B COL4A1 COL4A2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 COL4A2-AS2 LINC00552 MCF2L-AS1 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 LINC0110121336	CNV	not specified	13	107918132 - 114327173	161056	170900
84	GRCh38/hg38	13q33.3-34(chr13:107918132-114327173)x1	ATP4B COL4A1 COL4A2 F7 F10 GAS6 ING1 LAMP1 LIG4 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGGEF7 CDC16 TUBGCP3 TNFSF13B RAS3 MYO16 ATP11A MCF2L2 TMC03 DCUN1D2 ANKRD10 AB20 NAXD PCID2 UPF3A CAR32 GRTP1 ABHD13 ADPRHL1 TEX29 SPACA7 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A N LINC00452 GAS6-AS1 COL4A2-AS2 LINC00552 MCF2L-AS1 ANKRD10-IT1 SOX1-OT LINC005060 GAS6-DT C13orf46 MIR4502 MIR548AR LINC00565 GRTP1-AS1 LINC00443 COL4A2-AS1 ATP11A-AS1 ARHGGEF7-AS1 ARHGGEF7-AS2 MYO16-AS1 LINC01060553 LINC00676 LINC00368 LINC00354 LINC01070 LINC01928730 LINC01043 LINC01928841 CFAP97D2 MIR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 F10-AS1 LINC00370 LINC0105370361 LINC0105370362 LINC02337 LINC0105376684 LINC0107992391 LINC0110121336	CNV	not specified	13	107918132 - 114327173	33799	42464

85	GRCh38/hg38 13q33.3-34(chr13:108743171-114327173)x1	ATP4B COL4A1 COL4A2 F7F10 GAS6 ING1 LAMP1 GRK1 SOX1 TFDP1 CUL4A IRS2 PROZ ARHGFE7 CDC16 TUBGCP3 CNV RAS3 MYO16 ATP11A MCF2L TMC03 DCUN1D2 ANKRD10 IRAB20 NAXD PCID2 UPF3A CAR52 GRTP1 ADPRHL1 TEX 29 SPACA7 LINC00567 LINC00346 CHAMP1 TMEM255B ATP11A UN LINC00452 GAS6-AS1 COL4A2- AS2 LINC00552 MCF2L-AS1 ANKRD10-TT1 SOX1-OT LOC100506016 GAS6- DT C13orf46 MIR4502 MIR548A LINC00565 GRTP1-AS1 LINC00454 COL4A2-AS1 ATP11A-AS1 ARHGFE7- AS1 ARHGFE7-AS2 MYO16- AS1 LOC101060553 LINC00676 LINC00368 LINC00354 LINC01070 LOC101928730 LINC01043 LOC101928841 CFAP97D2  IR8073 MIR8075 LINC01044 LINC00399 LINC00431 LINC00396 F10- AS1 LINC00370 LOC105370361 LOC105370362 LINC02337 LOC105376684 LOC107992391 LOC110121336	CNV	not specified	13	108743171 - 114327173	56998	71593
86	GRCh38/hg38 13q34(chr13:109862835-110921746)x3	COL4A1 COL4A2 ING1 ANKRD10 IRAB20 NAXD CAR52 LINC00567 LINC00346 COL4A2-AS2 ANKRD10-TT1 COL4A2- AS1 MIR8073 LINC00396 LOC105370361 LOC105370362 LOC105376684	CNV	not specified	13	109862835 - 110921746	147436	157187
87	NM_001845.5(COL4A1):c.-103G>A	COL4A1 COL4A2	SNV <sup>2</sup>	Porencephaly Systemic vasculopathy	13	110307130	311088	335237
88	NM_001845.5(COL4A1):c.-13C>G	COL4A1 COL4A2	SNV	Porencephaly Systemic vasculopathy	13	110307040	311084	327336
89	NM_001845.5(COL4A1):c.-20G>T	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110307047	311085	333538
90	NM_001845.5(COL4A1):c.-71C>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110307098	311086	318923
91	NM_001845.5(COL4A1):c.-90G>T	COL4A1 COL4A2	SNV	Porencephaly Systemic vasculopathy	13	110307117	311087	335235
92	NM_001845.5(COL4A1):c.*1014C>T	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149349	311005	335147
93	NM_001845.5(COL4A1):c.*1039A>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149324	311004	335137
94	NM_001845.5(COL4A1):c.*1099G>A	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149264	311003	335132
95	NM_001845.5(COL4A1):c.*137G>A	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110150226	311017	318892
96	NM_001845.5(COL4A1):c.*1404T>C	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110148959	369034	353263
97	NM_001845.5(COL4A1):c.*176A>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110150187	311016	335163
98	NM_001845.5(COL4A1):c.*265A>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110150098	311015	335152
99	NM_001845.5(COL4A1):c.*477G>T	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149886	311014	327292
100	NM_001845.5(COL4A1):c.*510A>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149853	311013	327290
101	NM_001845.5(COL4A1):c.*531T>A	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149832	311012	327289
102	NM_001845.5(COL4A1):c.*587C>A	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149776	311011	335149
103	NM_001845.5(COL4A1):c.*609T>C	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149754	311010	327279
104	NM_001845.5(COL4A1):c.*646_*647dupAT	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149716 - 110149717	311009	333427
105	NM_001845.5(COL4A1):c.*6C>G	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110150357	311018	335173
106	NM_001845.5(COL4A1):c.*766G>A	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149597	311008	327278
107	NM_001845.5(COL4A1):c.*887delA	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149476	311007	327277
108	NM_001845.5(COL4A1):c.*975A>C	COL4A1	SNV	Porencephaly Systemic vasculopathy	13	110149388	311006	333425
109	NM_001845.5(COL4A1):c.1000-13C>G	COL4A1	SNV	promoter/enhancer Porencephaly Systemic vasculopathy	13	110201535	311066	335223
110	NM_001845.5(COL4A1):c.1000-5T>G	COL4A1	SNV	promoter/enhancer Porencephaly Systemic vasculopathy	13	110201527	311065	333510
111	NM_001845.5(COL4A1):c.1040G>T (p.Gly347Val)	COL4A1	SNV	coding exon-G not specified	13	110201482	585509	577297
112	NM_001845.5(COL4A1):c.1052dup (p.Pro352Serfs)	COL4A1	SNV	coding exon-Y not specified	13	110201470	451417	445113
113	NM_001845.5(COL4A1):c.1055C>T (p.Pro352Leu)	COL4A1	SNV	coding exon-Y Late-onset intracranial hemorrhage	13	110201467	39863	48462
114	NM_001845.5(COL4A1):c.1056G>A (p.Pro352=)	COL4A1	SNV	coding exon-Y not specified	13	110201466	585510	577296
115	NM_001845.5(COL4A1):c.1084+5C>G	COL4A1	SNV	splicing junction/intron Porencephaly Systemic vasculopathy	13	110201433	311064	327323
116	NM_001845.5(COL4A1):c.1085-2A>G	COL4A1	SNV	splicing junction/intron not specified	13	110200891	489189	482039
117	NM_001845.5(COL4A1):c.1108C>T (p.Pro370Ser)	COL4A1	SNV	coding exon-Y not specified	13	110200866	497893	489317
118	NM_001845.5(COL4A1):c.1257T>C (p.Pro419=)	COL4A1	SNV	coding exon-Y Porencephaly Systemic vasculopathy	13	110198495	258246	254806
119	NM_001845.5(COL4A1):c.1270C>A (p.Gln424Lys)	COL4A1	SNV	coding exon-Y not specified	13	110198482	374667	361553
120	NM_001845.5(COL4A1):c.1385A>G (p.Gln462Arg)	COL4A1	SNV	coding exon-Y Porencephaly Systemic vasculopathy	13	110192910	311063	333505
121	NM_001845.5(COL4A1):c.1402C>T (p.Leu468Phe)	COL4A1	SNV	coding exon-Y not specified	13	110192893	422781	408794
122	NM_001845.5(COL4A1):c.1427G>A (p.Arg476Gln)	COL4A1	SNV	coding exon-Y not specified	13	110192868	447158	441573
123	NM_001845.5(COL4A1):c.1450C>A (p.Pro484Thr)	COL4A1	SNV	coding exon-Y Optic nerve hypoplasia	13	110192845	496637	488122
124	NM_001845.5(COL4A1):c.1466-6C>T	COL4A1	SNV	splicing junction/intron Porencephaly Systemic vasculopathy	13	110192290	195811	192972

125	NM_001845.5(COL4A1):c.1492G>C (p.Gly498Arg)	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110192258	18462	33501
126	NM_001845.5(COL4A1):c.1493G>A (p.Gly498Asp)	COL4A1	SNV	coding exon-G	not specified	13	110192257	449496	445112
127	NM_001845.5(COL4A1):c.1493G>T (p.Gly498Val)	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110192257	17418	32457
128	NM_001845.5(COL4A1):c.1528G>A (p.Gly510Arg)	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110192222	18463	33502
129	NM_001845.5(COL4A1):c.1555G>A (p.Gly519Arg)	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110187311	17419	32458
130	NM_001845.5(COL4A1):c.1573_1574delGGinsTT	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110187292 - 110187293	18464	33503
131	NM_001845.5(COL4A1):c.1583G>A (p.Gly528Glu)	COL4A1	SNV	coding exon-G	Systemic vasculopathy	13	110187283	17420	32459
132	NM_001845.5(COL4A1):c.1588C>T (p.Pro530Ser)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110187278	195868	193029
133	NM_001845.5(COL4A1):c.1612C>G (p.Arg538Gly)	COL4A1	SNV	coding exon	Late-onset intracranial hemorrhage	13	110187254	39864	48463
134	NM_001845.5(COL4A1):c.161C>T (p.Pro54Leu)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110213999	196327	193488
135	NM_001845.5(COL4A1):c.1630G>A (p.Gly544Arg)	COL4A1	SNV	coding exon-G	not specified	13	110187236	430215	421953
136	NM_001845.5(COL4A1):c.1663C=> (p.Pro555=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110187203	258247	254805
137	NM_001845.5(COL4A1):c.1673C>T (p.Ala558Val)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110187193	311062	335213
138	NM_001845.5(COL4A1):c.1685G>A (p.Gly562Glu)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110187181	17414	32453
139	NM_001845.5(COL4A1):c.1701G>A (p.Pro567=)	COL4A1	SNV	coding exon-Y	not specified	13	110187165	585511	577295
140	NM_001845.5(COL4A1):c.1769G>A (p.Gly590Glu)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110186513	38962	47565
141	NM_001845.5(COL4A1):c.1781C>T (p.Pro594Leu)	COL4A1	SNV	coding exon-Y	not specified	13	110186501	499571	490995
142	NM_001845.5(COL4A1):c.1801G>A (p.Gly601Ser)	COL4A1	SNV	coding exon-G	not specified	13	110186481	420899	408793
143	NM_001845.5(COL4A1):c.1807C>T (p.Pro603Ser)	COL4A1	SNV	coding exon-Y	Systemic vasculopathy	13	110186475	522668	513327
144	NM_001845.5(COL4A1):c.1815T>C (p.Pro605=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110186467	195950	193111
145	NM_001845.5(COL4A1):c.1819G>C (p.Gly607Arg)	COL4A1	SNV	coding exon-G	not specified	13	110186463	434811	429480
146	NM_001845.5(COL4A1):c.1820G>T (p.Gly607Val)	COL4A1	SNV	coding exon-G	not specified	13	110186462	423825	408792
147	NM_001845.5(COL4A1):c.1838C>G (p.Pro613Arg)	COL4A1	SNV	coding exon-X	not specified	13	110186444	447159	441572
148	NM_001845.5(COL4A1):c.1858G>C (p.Ala620Pro)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110186424	311061	335212
149	NM_001845.5(COL4A1):c.1868C>T (p.Pro623Leu)	COL4A1	SNV	coding exon-Y	not specified	13	110186414	432485	426034
150	NM_001845.5(COL4A1):c.1897+7C>G	COL4A1	SNV	splicing junction/intron	not specified	13	110186378	195951	193112
151	NM_001845.5(COL4A1):c.1991-16G>A	COL4A1	SNV	splicing junction/intron	not specified	13	110183113	258248	254804
152	NM_001845.5(COL4A1):c.19G>C (p.Val7Leu)	COL4A1 COL4A2	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110307009	193216	190381
153	NM_001845.5(COL4A1):c.1A>T (p.Met1Leu)	COL4A1	SNV	coding exon	Porencephaly	13	110307027	17415	32454
154	NM_001845.5(COL4A1):c.2007C>T (p.Pro669=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110183081	311060	333503
155	NM_001845.5(COL4A1):c.2075C>G (p.Pro692Arg)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110183013	585088	576156
156	NM_001845.5(COL4A1):c.2078G>A (p.Gly693Glu)	COL4A1	SNV	coding exon-G	Porencephaly	13	110183010	434810	429479
157	NM_001845.5(COL4A1):c.2085delC (p.Gly696Alafs)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110183003	161440	171276
158	NM_001845.5(COL4A1):c.2086G>A (p.Gly696Ser)	COL4A1	SNV	coding exon-G	Late-onset intracranial hemorrhage	13	110183002	135653	139371
159	NM_001845.5(COL4A1):c.2093A>G (p.Lys698Arg)	COL4A1	SNV	coding exon-Y	not specified	13	110182995	447160	441571
160	NM_001845.5(COL4A1):c.2095+7C>G	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110182986	311059	327322
161	NM_001845.5(COL4A1):c.2096G>A (p.Gly699Asp)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110181389	422683	408791
162	NM_001845.5(COL4A1):c.2103C>T (p.Asp701=)	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110181382	311058	318911
163	NM_001845.5(COL4A1):c.2122G>A (p.Gly708Arg)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110181363	161977	171699
164	NM_001845.5(COL4A1):c.2124G>A (p.Gly708=)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110181361	311057	333499
165	NM_001845.5(COL4A1):c.2126C>T (p.Pro709Leu)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110181359	311056	333496
166	NM_001845.5(COL4A1):c.2130G>A (p.Pro710=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110181355	258249	254803
167	NM_001845.5(COL4A1):c.2141G>A (p.Gly714Asp)	COL4A1	SNV	coding exon-G	not specified	13	110181344	425032	413366
168	NM_001845.5(COL4A1):c.2159G>A (p.Gly720Asp)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110181326	17421	32460
169	NM_001845.5(COL4A1):c.2160C>T (p.Gly720=)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110181325	311055	318910
170	NM_001845.5(COL4A1):c.2194-1G>A	COL4A1	SNV	splicing junction/intron	Intracranial hemorrhage	13	110179422	161441	171277
171	NM_001845.5(COL4A1):c.2228G>T (p.Gly743Val)	COL4A1	SNV	coding exon-G	not specified	13	110179387	389182	373299

172	NM_001845.5(COL4A1):c.2245G>A (p.Gly749Ser)	COL4A1	SNV	coding exon-G	Porencephaly	13	110179370	17413	32452
173	NM_001845.5(COL4A1):c.2262C>T (p.Pro754=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110179353	311054	333493
174	NM_001845.5(COL4A1):c.2263G>A (p.Gly755Arg)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110179352	161974	171696
175	NM_001845.5(COL4A1):c.2282G>T (p.Gly761Val)	COL4A1	SNV	coding exon-G	not specified	13	110179333	421427	408790
176	NM_001845.5(COL4A1):c.2291G>A (p.Gly764Asp)	COL4A1	SNV	coding exon-G	not specified	13	110179324	585512	577294
177	NM_001845.5(COL4A1):c.2313G>A (p.Ala771=)	COL4A1	SNV	coding exon-X	not specified	13	110179302	493136	486099
178	NM_001845.5(COL4A1):c.2317G>A (p.Gly773Arg)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110179298	379845	372611
179	NM_001845.5(COL4A1):c.2317G>C (p.Gly773Arg)	COL4A1	SNV	coding exon-G	Intracranial hemorrhage	13	110179298	161975	171697
180	NM_001845.5(COL4A1):c.2344+8C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110213918	196328	193489
181	NM_001845.5(COL4A1):c.2344+11G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110179260	311053	335211
182	NM_001845.5(COL4A1):c.2405G>C (p.Gly802Ala)	COL4A1	SNV	coding exon-G	not specified	13	110178976	432504	426033
183	NM_001845.5(COL4A1):c.2494G>A (p.Gly832Arg)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110178196	208663	205278
184	NM_001845.5(COL4A1):c.2502T>G (p.Pro834=)	COL4A1	SNV	coding exon-Y	not specified	13	110178188	447161	441570
185	NM_001845.5(COL4A1):c.2570C>T (p.Ser857Leu)	COL4A1	SNV	coding exon-X	not specified	13	110178120	196775	193936
186	NM_001845.5(COL4A1):c.2624C>G (p.Pro875Arg)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110178066	311052	333483
187	NM_001845.5(COL4A1):c.2627-1G>A	COL4A1	SNV	splicing junction/intron	not specified	13	110177932	424127	408789
188	NM_001845.5(COL4A1):c.2627-4dup	COL4A1	SNV	splicing junction/intron	not specified	13	110177935	512887	504145
189	NM_001845.5(COL4A1):c.2647G>A (p.Val883Ile)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110177911	311051	335197
190	NM_001845.5(COL4A1):c.2659C>T (p.Pro887Ser)	COL4A1	SNV	coding exon-Y	not specified	13	110177899	392901	373289
191	NM_001845.5(COL4A1):c.2662G>A (p.Gly888Arg)	COL4A1	SNV	coding exon-G	Porencephaly/Intracranial hemorrhage	13	110177896	209141	205773
192	NM_001845.5(COL4A1):c.2672G>A (p.Gly891Asp)	COL4A1	SNV	coding exon-G	not specified	13	110177886	280827	264508
193	NM_001845.5(COL4A1):c.2706G>A (p.Pro902=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110177852	311050	327319
194	NM_001845.5(COL4A1):c.2732C>T (p.Pro911Leu)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110177022	311049	318906
195	NM_001845.5(COL4A1):c.279+20A>T	COL4A1	SNV	splicing junction/intron	not specified	13	110213762	445331	438603
196	NM_001845.5(COL4A1):c.280-12C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110212630	311082	333537
197	NM_001845.5(COL4A1):c.2811C>T (p.Ser937=)	COL4A1	SNV	coding exon-Y	not specified	13	110176943	385819	373582
198	NM_001845.5(COL4A1):c.2842G>A (p.Gly948Ser)	COL4A1	SNV	coding exon-G	Optic nerve hypoplasia	13	110176912	496641	488126
199	NM_001845.5(COL4A1):c.2869+6T>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110176879	311048	327307
200	NM_001845.5(COL4A1):c.2890G>C (p.Glu964Gln)	COL4A1	SNV	coding exon-X	not specified	13	110176704	452767	445111
201	NM_001845.5(COL4A1):c.2903G>A (p.Arg968Gln)	COL4A1	SNV	coding exon-Y	not specified	13	110176691	196947	194108
202	NM_001845.5(COL4A1):c.2955G>C (p.Gln985His)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110176639	311047	333482
203	NM_001845.5(COL4A1):c.2968+12A>G	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110176614	311046	318899
204	NM_001845.5(COL4A1):c.2968+4C>T	COL4A1	SNV	splicing junction/intron	not specified	13	110176622	513693	504708
205	NM_001845.5(COL4A1):c.2T>A (p.Met1Lys)	COL4A1	SNV	coding exon	not specified	13	110307026	546733	537222
206	NM_001845.5(COL4A1):c.3018T>G (p.Leu1006=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110176464	311045	318895
207	NM_001845.5(COL4A1):c.3031G>T (p.Gly1011Ter)	COL4A1	SNV	coding exon-G	not specified	13	110176451	591494	582485
208	NM_001845.5(COL4A1):c.3032G>A (p.Gly1011Glu)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110176450	521700	512053
209	NM_001845.5(COL4A1):c.3067G>A (p.Gly1023Arg)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110175349	521072	512052
210	NM_001845.5(COL4A1):c.3097C>T (p.Pro1033Ser)	COL4A1	SNV	coding exon-X	not specified	13	110175319	501320	492744
211	NM_001845.5(COL4A1):c.3104G>T (p.Gly1035Val)	COL4A1	SNV	coding exon-G	Schizencephaly	13	110175312	440782	434400
212	NM_001845.5(COL4A1):c.3133G>A (p.Ala1045Thr)	COL4A1	SNV	coding exon-X	not specified	13	110175283	374713	361599
213	NM_001845.5(COL4A1):c.3164C>T (p.Pro1055Leu)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110175252	311044	335196
214	NM_001845.5(COL4A1):c.3170T>C (p.Ile1057Thr)	COL4A1	SNV	coding exon-X	not specified	13	110175246	585513	577293
215	NM_001845.5(COL4A1):c.3178C>G (p.Pro1060Ala)	COL4A1	SNV	coding exon-Y	not specified	13	110175238	423054	408788
216	NM_001845.5(COL4A1):c.3178C>T (p.Pro1060Ser)	COL4A1	SNV	coding exon-Y	not specified	13	110175238	290050	274287
217	NM_001845.5(COL4A1):c.3183G>A (p.Gly1061=)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110175233	258250	254802
218	NM_001845.5(COL4A1):c.3189A>T (p.Arg1063=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110175227	258251	254801
219	NM_001845.5(COL4A1):c.3198+10G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110175208	311043	333481
220	NM_001845.5(COL4A1):c.3208G>A (p.Gly1070Arg)	COL4A1	SNV	coding exon-G	not specified	13	110174740	389091	372604
221	NM_001845.5(COL4A1):c.3236G>A (p.Gly1079Glu)	COL4A1	SNV	coding exon-G	not specified	13	110174712	585514	577292
222	NM_001845.5(COL4A1):c.324+1G>A	COL4A1	SNV	splicing junction/intron	not specified	13	110212573	426821	415367

223	NM_001845.5(COL4A1):c.3241A>G (p.Lys1081Glu)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110174707	311042	327306
224	NM_001845.5(COL4A1):c.3285C>T (p.Ser1095=)	COL4A1	SNV	coding exon-X	not specified	13	110174663	79297	90188
225	NM_001845.5(COL4A1):c.3288A>G (p.Pro1096=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110174660	311041	335193
226	NM_001845.5(COL4A1):c.3297T>C (p.Ile110Thr)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110212475	311081	333536
227	NM_001845.5(COL4A1):c.3326-7dupT	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110174533	311040	327305
228	NM_001845.5(COL4A1):c.3353G>A (p.Gly1118Asp)	COL4A1	SNV	coding exon-G	Porencephaly	13	110174499	560984	552166
229	NM_001845.5(COL4A1):c.3358A>G (p.Lys1120Glu)	COL4A1	SNV	coding exon-Y	not specified	13	110174494	596811	587872
230	NM_001845.5(COL4A1):c.3371G>A (p.Gly1124Glu)	COL4A1	SNV	coding exon-G	not specified	13	110174481	426328	415366
231	NM_001845.5(COL4A1):c.3389G>A (p.Gly1130Asp)	COL4A1	SNV	coding exon-G	Porencephaly	13	110174463	17416	32455
232	NM_001845.5(COL4A1):c.3431C>G (p.Thr1144Arg)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110173974	311039	333474
233	NM_001845.5(COL4A1):c.3497G>T (p.Gly1166Val)	COL4A1	SNV	coding exon-G	not specified	13	110173908	427139	415365
234	NM_001845.5(COL4A1):c.3499G>A (p.Glu1167Lys)	COL4A1	SNV	coding exon-X	Inborn malformation	13	110173906	521117	512051
235	NM_001845.5(COL4A1):c.3505+1G>A	COL4A1	SNV	splicing junction/intron	Inborn malformation	13	110173899	521680	512050
236	NM_001845.5(COL4A1):c.3506-7C>G	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110172777	311038	335186
237	NM_001845.5(COL4A1):c.3555A>G (p.Lys1185=)	COL4A1	SNV	coding exon-Y	not specified	13	110172721	374263	361208
238	NM_001845.5(COL4A1):c.3556+1G>T	COL4A1	SNV	splicing junction/intron	not specified	13	110172719	489296	482038
239	NM_001845.5(COL4A1):c.3557-14T>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110170746	311037	327304
240	NM_001845.5(COL4A1):c.3591C>T (p.Ala1197=)	COL4A1	SNV	coding exon-Y	not specified	13	110170698	285268	269505
241	NM_001845.5(COL4A1):c.3611G>A (p.Gly1204Glu)	COL4A1	SNV	coding exon-G	not specified	13	110170678	427027	415364
242	NM_001845.5(COL4A1):c.3634A>T (p.Met1212Leu)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110170655	311036	327301
243	NM_001845.5(COL4A1):c.3674G>A (p.Gly1225Glu)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110170615	521632	512049
244	NM_001845.5(COL4A1):c.3683G>T (p.Gly1228Val)	COL4A1	SNV	coding exon-G	not specified	13	110170606	546139	536860
245	NM_001845.5(COL4A1):c.3693G>A (p.Thr1231=)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110170596	258252	254800
246	NM_001845.5(COL4A1):c.3706G>A (p.Gly1236Arg)	COL4A1	SNV	coding exon-G	Porencephaly	13	110170583	17412	32451
247	NM_001845.5(COL4A1):c.3715G>A (p.Gly1239Arg)	COL4A1	SNV	coding exon-G	not specified	13	110170574	426610	415363
248	NM_001845.5(COL4A1):c.3742+14G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110170533	311035	318894
249	NM_001845.5(COL4A1):c.3748C>A (p.Pro1250Thr)	COL4A1	SNV	coding exon-Y	not specified	13	110169757	430395	421952
250	NM_001845.5(COL4A1):c.3760G>A (p.Gly1254Arg)	COL4A1	SNV	coding exon-G	not specified	13	110169745	426414	415362
251	NM_001845.5(COL4A1):c.3776C>G (p.Pro1259Arg)	COL4A1	SNV	coding exon-Y	not specified	13	110169729	289290	273527
252	NM_001845.5(COL4A1):c.3797G>A (p.Gly1266Asp)	COL4A1	SNV	coding exon-G	not specified	13	110169708	372956	359991
253	NM_001845.5(COL4A1):c.380G>T (p.Gly128Val)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110212424	311080	327335
254	NM_001845.5(COL4A1):c.3857C>A (p.Pro1286His)	COL4A1	SNV	coding exon-Y	not specified	13	110169648	422462	408787
255	NM_001845.5(COL4A1):c.3877-8G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110167238	311034	327297
256	NM_001845.5(COL4A1):c.3877-9C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110167239	258253	254799
257	NM_001845.5(COL4A1):c.388-11T>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110211933	311079	318920
258	NM_001845.5(COL4A1):c.388G>A (p.Gly130Arg)	COL4A1	SNV	coding exon-G	not specified	13	110211922	591287	582280
259	NM_001845.5(COL4A1):c.3899T>C (p.Ile1300Thr)	COL4A1	SNV	coding exon-X	not specified	13	110167208	546732	537221
260	NM_001845.5(COL4A1):c.3917A>T (p.Asp1306Val)	COL4A1	SNV	coding exon-X	not specified	13	110167190	432696	426032
261	NM_001845.5(COL4A1):c.393G>A (p.Glu131=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110211917	198472	195633
262	NM_001845.5(COL4A1):c.3941G>A (p.Gly1314Glu)	COL4A1	SNV	coding exon-G	Inborn malformation	13	110167166	521804	512048
263	NM_001845.5(COL4A1):c.3946C>G (p.Gln1316Glu)	COL4A1	SNV	coding exon-Y	not specified	13	110167161	418141	408786
264	NM_001845.5(COL4A1):c.3949+10C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110167148	311033	335183
265	NM_001845.5(COL4A1):c.3972C>T (p.Leu1324=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110166281	311032	333471
266	NM_001845.5(COL4A1):c.3976G>A (p.Gly1326Arg)	COL4A1	SNV	coding exon-G	Schizencephaly	13	110166277	132791	136540
267	NM_001845.5(COL4A1):c.3977G>T (p.Gly1326Val)	COL4A1	SNV	coding exon-G	not specified	13	110166276	280525	264722
268	NM_001845.5(COL4A1):c.3996C>T (p.Gly1332=)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110166257	197519	194680
269	NM_001845.5(COL4A1):c.4002A>C (p.Gln1334His)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110166251	197520	194681
270	NM_001845.5(COL4A1):c.4005C>T (p.Gly1335=)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110166248	311031	333455
271	NM_001845.5(COL4A1):c.4010C>T (p.Pro1337Leu)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110166243	311030	335182
272	NM_001845.5(COL4A1):c.4021+14T>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110166218	311029	318893



273	NM_001845.5(COL4A1):c.4038T>C (p.Pro1346=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110164974	311028	333454
274	NM_001845.5(COL4A1):c.4056C>T (p.Tyr1352=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110164956	197543	194704
275	NM_001845.5(COL4A1):c.405C>T (p.Leu135=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110211905	311078	333527
276	NM_001845.5(COL4A1):c.4098C>T (p.Gly1366=)	COL4A1	SNV	coding exon-G	not specified	13	110164914	282954	267191
277	NM_001845.5(COL4A1):c.4129C>T (p.Pro1377Ser)	COL4A1	SNV	coding exon-Y	not specified	13	110164883	591851	582840
278	NM_001845.5(COL4A1):c.4150+3G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110164859	311027	327295
279	NM_001845.5(COL4A1):c.4229T>C (p.Met1410Thr)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110163483	311026	335181
280	NM_001845.5(COL4A1):c.4250-12C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110162454	311025	335180
281	NM_001845.5(COL4A1):c.4267G>C (p.Gly1423Arg)	COL4A1	SNV	coding exon-G	Porencephaly	13	110162425	17417	32456
282	NM_001845.5(COL4A1):c.4271C>T (p.Pro1424Leu)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110162421	311024	327294
283	NM_001845.5(COL4A1):c.432T>A (p.Ala144=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110211878	258254	254813
284	NM_001845.5(COL4A1):c.4388G>A (p.Gly1463Glu)	COL4A1	SNV	coding exon-G	not specified	13	110162304	373519	360121
285	NM_001845.5(COL4A1):c.4441C>T (p.Arg1481Trp)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110162251	311023	333448
286	NM_001845.5(COL4A1):c.4442G>A (p.Arg1481Gln)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110162250	311022	327293
287	NM_001845.5(COL4A1):c.4470C>T (p.Ala1490=)	COL4A1	SNV	coding exon-Y	Porencephaly/Systemic vasculopathy	13	110161362	258255	254798
288	NM_001845.5(COL4A1):c.4540G>A (p.Ala1514Thr)	COL4A1	SNV	coding exon	Inborn malformation	13	110161292	521827	512047
289	NM_001845.5(COL4A1):c.4583C>T (p.Pro1528Leu)	COL4A1	SNV	coding exon	not specified	13	110161249	427116	415361
290	NM_001845.5(COL4A1):c.4640+16G>A	COL4A1	SNV	splicing junction/intron	not specified	13	110161176	258256	254796
291	NM_001845.5(COL4A1):c.4640+3G>T	COL4A1	SNV	splicing junction/intron	not specified	13	110161189	506762	505112
292	NM_001845.5(COL4A1):c.4640+7C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110161185	258257	254797
293	NM_001845.5(COL4A1):c.4640+8G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110161184	311021	333446
294	NM_001845.5(COL4A1):c.4658C>T (p.Ala1553Val)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110155380	311020	333441
295	NM_001845.5(COL4A1):c.468+15_468+19del	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110211628 - 110211632	258258	254812
296	NM_001845.5(COL4A1):c.4738G>C (p.Gly1580Arg)	COL4A1	SNV	coding exon-G	Porencephaly	13	110155300	17422	32461
297	NM_001845.5(COL4A1):c.4757A>T (p.His1586Leu)	COL4A1	SNV	coding exon	not specified	13	110152505	585515	577291
298	NM_001845.5(COL4A1):c.4764C>G (p.Ser1588Arg)	COL4A1	SNV	coding exon	not specified	13	110152498	282024	266261
299	NM_001845.5(COL4A1):c.4797G>A (p.Ala1599=)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110152465	258259	254795
300	NM_001845.5(COL4A1):c.4800C>T (p.Ser1600=)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110152462	258260	254794
301	NM_001845.5(COL4A1):c.4803C>T (p.Pro1601=)	COL4A1	SNV	coding exon	not specified	13	110152459	546731	537220
302	NM_001845.5(COL4A1):c.4881C>G (p.Asn1627Lys)	COL4A1	SNV	coding exon	Intracranial hemorrhage	13	110152381	161976	171698
303	NM_001845.5(COL4A1):c.4940C>T (p.Pro1647Leu)	COL4A1	SNV	coding exon	not specified	13	110150433	546730	537219
304	NM_001845.5(COL4A1):c.4941G>A (p.Pro1647=)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110150432	311019	333434
305	NM_001845.5(COL4A1):c.495T>A (p.His165Gln)	COL4A1	SNV	coding exon	not specified	13	110210186	596296	587357
306	NM_001845.5(COL4A1):c.4981C>T (p.Arg1661Cys)	COL4A1	SNV	coding exon	Inborn malformation	13	110150392	521435	512046
307	NM_001845.5(COL4A1):c.4994G>A (p.Cys1665Tyr)	COL4A1	SNV	coding exon	not specified	13	110150379	197934	195095
308	NM_001845.5(COL4A1):c.4996A>G (p.Met1666Val)	COL4A1	SNV	coding exon	not specified	13	110150377	451373	445110
309	NM_001845.5(COL4A1):c.501C>T (p.Pro167=)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110210180	311077	318916
310	NM_001845.5(COL4A1):c.518G>A (p.Gly173Asp)	COL4A1	SNV	coding exon-G	not specified	13	110210163	447162	441575
311	NM_001845.5(COL4A1):c.553-10T>C	COL4A1	SNV	splicing junction/intron	not specified	13	110210052	447163	441574
312	NM_001845.5(COL4A1):c.553-8C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110210050	311076	335231
313	NM_001845.5(COL4A1):c.554G>C (p.Gly185Ala)	COL4A1	SNV	coding exon-G	not specified	13	110210041	591288	582281
314	NM_001845.5(COL4A1):c.559C>A (p.Pro187Thr)	COL4A1	SNV	coding exon-Y	not specified	13	110210036	422572	408796
315	NM_001845.5(COL4A1):c.607G>A (p.Gly203Arg)	COL4A1	SNV	coding exon-G	not specified	13	110209988	374668	361554
316	NM_001845.5(COL4A1):c.616-11G>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110209438	258261	254811
317	NM_001845.5(COL4A1):c.626_627insT (p.Pro211Serfs)	COL4A1	SNV	coding exon-Y	not specified	13	110209416 - 110209417	591846	582835
318	NM_001845.5(COL4A1):c.634G>A (p.Gly212Ser)	COL4A1	SNV	coding exon-G	not specified	13	110209409	235568	237249
319	NM_001845.5(COL4A1):c.651+4_651+5insCAC	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110209387 - 110209388	311075	335230
320	NM_001845.5(COL4A1):c.690C>T (p.Asp230=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110208852	311074	318913
321	NM_001845.5(COL4A1):c.708C>G (p.Val236=)	COL4A1	SNV	coding exon-X	Porencephaly/Systemic vasculopathy	13	110207475	311073	333526

322	NM_001845.5(COL4A1):c.766A>G (p.Thr256Ala)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110207417	311072	327334
323	NM_001845.5(COL4A1):c.780+7G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110207396	258262	254810
324	NM_001845.5(COL4A1):c.781-12G>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110206903	311071	335229
325	NM_001845.5(COL4A1):c.7C>A (p.Pro3Thr)	COL4A1	SNV	coding exon	not specified	13	110307021	289628	273865
326	NM_001845.5(COL4A1):c.807+3C>T	COL4A1	SNV	splicing junction/intron	not specified	13	110206862	281989	266226
327	NM_001845.5(COL4A1):c.808-7C>A	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110206722	311070	327333
328	NM_001845.5(COL4A1):c.808-7C>G	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110206722	258263	254809
329	NM_001845.5(COL4A1):c.82A>G (p.Lys28Glu)	COL4A1	SNV	coding exon	Porencephaly/Systemic vasculopathy	13	110306946	311083	318921
330	NM_001845.5(COL4A1):c.85-11T>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110242745	258264	254814
331	NM_001845.5(COL4A1):c.859-10T>C	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110205548	258265	254808
332	NM_001845.5(COL4A1):c.859-8_859del	COL4A1	SNV	splicing junction/intron	not specified	13	110205538 - 110205546	591078	582072
333	NM_001845.5(COL4A1):c.862_866del (p.Lys288Argfs)	COL4A1	SNV	coding exon-X	not specified	13	110205531 - 110205535	591950	582939
334	NM_001845.5(COL4A1):c.903+18G>A	COL4A1	SNV	splicing junction/intron	not specified	13	110205476	258266	254807
335	NM_001845.5(COL4A1):c.904-9C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110205415	311069	335226
336	NM_001845.5(COL4A1):c.922G>A (p.Gly308Arg)	COL4A1	SNV	coding exon-G	not specified	13	110205388	423149	408795
337	NM_001845.5(COL4A1):c.943C>T (p.Arg315Cys)	COL4A1	SNV	coding exon-X	not specified	13	110205367	372328	359992
338	NM_001845.5(COL4A1):c.958-9C>T	COL4A1	SNV	splicing junction/intron	Porencephaly/Systemic vasculopathy	13	110203616	311068	327327
339	NM_001845.5(COL4A1):c.994G>C (p.Gly332Arg)	COL4A1	SNV	coding exon-G	Porencephaly/Systemic vasculopathy	13	110203571	311067	333515
340	NM_001846.3(COL4A2):c.-101G>A	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307472	311094	333555
341	NM_001846.3(COL4A2):c.-133A>G	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307440	311093	335248
342	NM_001846.3(COL4A2):c.-203T>C	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307370	311092	333546
343	NM_001846.3(COL4A2):c.-215C>T	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307358	311091	327338
344	NM_001846.3(COL4A2):c.-232C>G	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307341	311090	327337
345	NM_001846.3(COL4A2):c.-277A>C	COL4A1 COL4A2	SNV	promoter/enhancer	Porencephaly/Systemic vasculopathy	13	110307296	311089	333543

CNV, Copy number variation; SNV, Single nucleotide variations