

Lista wymaganych genów w panelu NGS							
Lp.	Nazwa genu	Lp.	Nazwa genu	Lp.	Nazwa genu	Lp.	Nazwa genu
1	A2ML1	47	AIP	93	ARX	139	BRIP1
2	AAAS	48	AIPL1	94	ASAH1	140	BRWD3
3	AARS2	49	AIRE	95	ASL	141	BSCL2
4	ABCA4	50	AKAP9	96	ASPA	142	BSND
5	ABCB11	51	AKR1D1	97	ASS1	143	BTD
6	ABCB4	52	AKT3	98	ATM	144	BTK
7	ABCC8	53	ALDH5A1	99	ATP13A2	145	BUB1B
8	ABCD1	54	ALDH7A1	100	ATP1A2	146	C12orf65
9	ABCG5	55	ALDOA	101	ATP1A3	147	C1R
10	ABCG8	56	ALDOB	102	ATP6AP2	148	C1S
11	ABHD5	57	ALG1	103	ATP6V0A4	149	C2
12	ACAD9	58	ALG5	104	ATP6V1B1	150	C3
13	ACADM	59	ALG6	105	ATP7A	151	C5
14	ACADS	60	ALPK3	106	ATP7B	152	CA2
15	ACADVL	61	ALPL	107	ATP8B1	153	CACNA1A
16	ACE	62	AMACR	108	ATR	154	CACNA1C
17	ACOX1	63	AMER1	109	ATRX	155	CACNA1D
18	ACSF3	64	AMT	110	AUH	156	CACNA1H
19	ACTA1	65	ANK2	111	AVP	157	CACNA1S
20	ACTA2	66	ANKH	112	AVPR2	158	CACNB4
21	ACTB	67	ANKRD1	113	AXIN2	159	CALM1
22	ACTC1	68	ANKRD11	114	B3GALNT2	160	CALM2
23	ACTG1	69	ANKS6	115	B3GALT6	161	CALR3
24	ACTN2	70	ANLN	116	B3GLCT	162	CAPN3
25	ACTN4	71	ANO5	117	B4GALT7	163	CASK
26	ADA	72	ANOS1	118	BAAT	164	CASP8
27	ADAMTS13	73	AP1S2	119	BAG3	165	CASQ2
28	ADAMTS2	74	AP2S1	120	BAP1	166	CASR
29	ADAMTSL2	75	AP3B1	121	BBS1	167	CAV3
30	ADGRV1	76	AP4M1	122	BBS10	168	CAVIN1
31	ADK	77	APC	123	BBS2	169	CBL
32	ADNP	78	APOL1	124	BCOR	170	CBS
33	ADSL	79	APPL1	125	BCS1L	171	CC2D2A
34	ADSS1	80	APTX	126	BEST1	172	CCDC78
35	AEBP1	81	AQP2	127	BICD2	173	CCDC8
36	AGA	82	AR	128	BIN1	174	CCND2
37	AGK	83	ARG1	129	BLK	175	CD19
38	AGL	84	ARHGAP24	130	BLM	176	CD27
39	AGPS	85	ARHGDI	131	BMP4	177	CD2AP
40	AGRN	86	ARHGEF9	132	BMPR1A	178	CD320
41	AGT	87	ARID1A	133	BMPR2	179	CD46
42	AGTR1	88	ARID1B	134	BNC2	180	CD59
43	AGXT	89	ARMC9	135	BOLA3	181	CDC73
44	AHI1	90	ARSA	136	BRAF	182	CDH1
45	AIFM1	91	ARSB	137	BRCA1	183	CDH23
46	AIMP1	92	ARSL	138	BRCA2	184	CDK4

185	CDKL5	238	CLRN1	291	CTNNA3	344	DNAJC30
186	CDKN1B	239	CNTNAP2	292	CTNNB1	345	DNM1L
187	CDKN1C	240	COCH	293	CTNS	346	DNM2
188	CDKN2A	241	COL10A1	294	CTRC	347	DNMT1
189	CDT1	242	COL11A1	295	CTSA	348	DOK7
190	CEL	243	COL11A2	296	CTSC	349	DOLK
191	CEP120	244	COL12A1	297	CTSD	350	DPAGT1
192	CEP164	245	COL1A1	298	CUL3	351	DPM1
193	CEP290	246	COL1A2	299	CUL4B	352	DPYD
194	CEP83	247	COL2A1	300	CUL7	353	DSC2
195	CFB	248	COL3A1	301	CXCR4	354	DSG2
196	CFC1	249	COL4A1	302	CYBA	355	DSP
197	CFH	250	COL4A3	303	CYBB	356	DSPP
198	CFHR1	251	COL4A4	304	CYLD	357	DSTYK
199	CFHR2	252	COL4A5	305	CYP11A1	358	DTNA
200	CFHR3	253	COL4A6	306	CYP11B1	359	DYM
201	CFHR4	254	COL5A1	307	CYP11B2	360	DYNC1H1
202	CFHR5	255	COL5A2	308	CYP17A1	361	DYNC2H1
203	CFI	256	COL6A1	309	CYP1B1	362	DYNC2I1
204	CFL2	257	COL6A2	310	CYP24A1	363	DYNC2I2
205	CFTR	258	COL6A3	311	CYP27A1	364	DYNC2LI1
206	CHAT	259	COL9A1	312	CYP7B1	365	DYSF
207	CHD1L	260	COL9A2	313	D2HGDH	366	DZIP1L
208	CHD2	261	COLQ	314	DAG1	367	EARS2
209	CHD7	262	COMP	315	DARS2	368	EBP
210	CHEK2	263	COPA	316	DCDC2	369	ECEL1
211	CHKB	264	COQ2	317	DCLRE1C	370	ECHS1
212	CHRM3	265	COQ4	318	DCX	371	EDN3
213	CHRNA1	266	COQ6	319	DDB2	372	EDNRB
214	CHRNA2	267	COQ7	320	DDR2	373	EFHC1
215	CHRNA4	268	COQ8A	321	DDX11	374	EGFR
216	CHRN1B	269	COQ8B	322	DES	375	EGR2
217	CHRN2B	270	COQ9	323	DGKE	376	EHMT1
218	CHRND	271	COX10	324	DGUOK	377	EIF2AK3
219	CHRNE	272	COX15	325	DHCR7	378	EIF2B1
220	CHRNA1	273	CPS1	326	DHX37	379	EIF2B2
221	CHST14	274	CPT1A	327	DIAPH1	380	EIF2B3
222	CITED2	275	CPT2	328	DIAPH3	381	EIF2B4
223	CLCN1	276	CR1	329	DICER1	382	EIF2B5
224	CLCN2	277	CR2	330	DIS3L2	383	ELAC2
225	CLCN5	278	CRB2	331	DKC1	384	ELANE
226	CLCNKA	279	CREBBP	332	DLAT	385	EMD
227	CLCNKB	280	CRELD1	333	DLD	386	EMP2
228	CLDN1	281	CRKL	334	DLG3	387	ENO3
229	CLDN16	282	CRPPA	335	DMD	388	ENPP1
230	CLDN19	283	CRTAP	336	DMP1	389	EP300
231	CLIC5	284	CRX	337	DMPK	390	EPCAM
232	CLN3	285	CRYAB	338	DNA2	391	EPG5
233	CLN5	286	CSF1R	339	DNAJB1	392	EPM2A
234	CLN6	287	CSPP1	340	DNAJB11	393	ERCC1
235	CLN8	288	CSRP3	341	DNAJB6	394	ERCC2
236	CLPB	289	CSTB	342	DNAJC19	395	ERCC3
237	CLPP	290	CTLA4	343	DNAJC3	396	ERCC4

397	ERCC5	450	FN1	503	GJB6	556	HEXB
398	ERCC6	451	FOLR1	504	GJC2	557	HFE
399	ERCC8	452	FOXC1	505	GK	558	HGD
400	ESPN	453	FOXG1	506	GLA	559	HIBCH
401	ETFA	454	FOXI1	507	GLB1	560	HMGCL
402	ETFB	455	FOXL2	508	GLDC	561	HMGCS2
403	ETFDH	456	FOXP3	509	GLI3	562	HNF1A
404	ETHE1	457	FOXRED1	510	GLIS2	563	HNF1B
405	EVC	458	FRAS1	511	GLRX5	564	HNF4A
406	EVC2	459	FREM1	512	GLUD1	565	HNRNPK
407	EXT1	460	FREM2	513	GM2A	566	HOGA1
408	EXT2	461	FSHB	514	GMPPB	567	HOXA11
409	EYA1	462	FUCA1	515	GNA11	568	HPCA
410	EYA4	463	FUT2	516	GNAL	569	HPRT1
411	EZH2	464	FXN	517	GNAS	570	HPSE2
412	FA2H	465	G6PC	518	NE	571	HRAS
413	FAH	466	G6PC3	519	GNPAT	572	HS6ST1
414	FAM126A	467	GAA	520	GNPTAB	573	HSD11B2
415	FAM20A	468	GABRA1	521	GNPTG	574	HSD17B10
416	FAN1	469	GABRG2	522	GNRH1	575	HSD17B3
417	FANCA	470	GALC	523	GNRHR	576	HSD17B4
418	FANCB	471	GALNT3	524	GNS	577	HSD3B2
419	FANCC	472	GALT	525	GPC3	578	HSD3B7
420	FANCD2	473	GAMT	526	GPD1L	579	HSPD1
421	FANCE	474	GANAB	527	GPR143	580	HSPG2
422	FANCF	475	GATA2	528	GPSM2	581	IARS1
423	FANCG	476	GATA3	529	GREB1L	582	IARS2
424	FANCI	477	GATA4	530	GRHL2	583	IBA57
425	FANCL	478	GATA6	531	GRHPR	584	ICOS
426	FANCM	479	GATM	532	GRIA3	585	IDH2
427	FARS2	480	GBA	533	GRIN2A	586	IDS
428	FASTKD2	481	GBE1	534	GRIN2B	587	IFT122
429	FBN1	482	GCDH	535	GRIP1	588	IFT140
430	FBN2	483	GCH1	536	GRXCR1	589	IFT172
431	FBXL4	484	GCK	537	GSDME	590	IFT43
432	FGD1	485	GCSH	538	GTPBP3	591	IFT80
433	FGF20	486	GDAP1	539	GUCY2C	592	IGBP1
434	FGF23	487	GDF1	540	GYG1	593	IGF1
435	FGFR1	488	GDF6	541	GYS1	594	IGF1R
436	FGFR2	489	GDNF	542	GYS2	595	IGHMBP2
437	FGFR3	490	GFAP	543	HACE1	596	IL10RA
438	FH	491	GFER	544	HADH	597	IL10RB
439	FHL1	492	GFM1	545	HADHA	598	IL11RA
440	FHL2	493	GFPT1	546	HADHB	599	IL17F
441	FKBP10	494	GFRA1	547	HARS2	600	IL17RA
442	FKBP14	495	GH1	548	HAVCR2	601	IL1RAPL1
443	FKRP	496	GHR	549	HAX1	602	IL1RN
444	FKTN	497	GHRHR	550	HCCS	603	IL2RG
445	FLCN	498	GIPC3	551	HCN4	604	IL36RN
446	FLNA	499	GJA1	552	HDAC8	605	IL7R
447	FLNB	500	GJB1	553	HEPACAM	606	ILK
448	FLNC	501	GJB2	554	HESX1	607	INF2
449	FMR1	502	GJB3	555	HEXA	608	INPL1

609	INS	662	LAMP2	715	MED12	768	MYH11
610	INSR	663	LARGE1	716	MED13L	769	MYH14
611	INVS	664	LARS1	717	MEF2C	770	MYH2
612	IQCB1	665	LARS2	718	MEFV	771	MYH3
613	ITGA3	666	LBR	719	MEGF10	772	MYH6
614	ITGA7	667	LDB3	720	MEN1	773	MYH7
615	ITGA8	668	LDHA	721	MET	774	MYH7B
616	ITGB4	669	LDLR	722	MFF	775	MYH9
617	ITK	670	LEP	723	MFN2	776	MYL2
618	ITPA	671	LEPR	724	MFSD8	777	MYL3
619	IVD	672	LGI1	725	MGME1	778	MYLK
620	JAG1	673	LHCGR	726	MIB1	779	MYLK2
621	JAGN1	674	LHX3	727	MID1	780	MYO15A
622	JPH2	675	LHX4	728	MITF	781	MYO1A
623	JUP	676	LIAS	729	MKRN3	782	MYO1E
624	KAT6B	677	LIFR	730	MKS1	783	MYO5B
625	KBTBD13	678	LIG4	731	MLC1	784	MYO6
626	KCND3	679	LIPA	732	MLH1	785	MYO7A
627	KCNE1	680	LIPE	733	MLYCD	786	MYOM1
628	KCNE2	681	LIPT1	734	MMAA	787	MYOT
629	KCNE3	682	LMBRD1	735	MMAB	788	MYOZ2
630	KCNH2	683	LMNA	736	MMACHC	789	MYPN
631	KCNJ1	684	LMNB1	737	MMADHC	790	NAGS
632	KCNJ10	685	LMOD3	738	MMP13	791	NARS2
633	KCNJ11	686	LMX1B	739	MMP9	792	NBAS
634	KCNJ2	687	LPIN1	740	MMUT	793	NBN
635	KCNJ5	688	LRBA	741	MOCS1	794	NCF1
636	KCNQ1	689	LRP2	742	MOCS2	795	NCF2
637	KCNQ2	690	LRP4	743	MPI	796	NDP
638	KCNQ3	691	LRPPRC	744	MPV17	797	NDUFA1
639	KCNQ4	692	LTBP2	745	MPZ	798	NDUFA10
640	KCNT1	693	LYRM7	746	MRAP	799	NDUFA12
641	KCTD17	694	LYST	747	MRAS	800	NDUFA2
642	KCTD7	695	LZTR1	748	MRE11	801	NDUFAF1
643	KDM5C	696	MAGED2	749	MRPS22	802	NDUFAF2
644	KDM6A	697	MAGI2	750	MSH2	803	NDUFAF3
645	KIAA0586	698	MAGT1	751	MSH6	804	NDUFAF5
646	KIF7	699	MAMLD1	752	MSTO1	805	NDUFAF6
647	KIFBP	700	MAN1B1	753	MSX2	806	NDUFB11
648	KIT	701	MAN2B1	754	MTFMT	807	NDUFS1
649	KLF11	702	MAOA	755	MTHFR	808	NDUFS2
650	KLHL24	703	MAP2K1	756	MTM1	809	NDUFS4
651	KLHL3	704	MAP2K2	757	MTO1	810	NDUFS6
652	KLHL40	705	MAPKBP1	758	MTOR	811	NDUFS7
653	KLHL41	706	MARS2	759	MTR	812	NDUFS8
654	KMT2A	707	MAX	760	MTRR	813	NDUFV1
655	KMT2D	708	MBD5	761	MUC1	814	NDUFV2
656	KRAS	709	MC2R	762	MUSK	815	NEB
657	L1CAM	710	MC4R	763	MUTYH	816	NEBL
658	L2HGDH	711	MCCC1	764	MVK	817	NEK1
659	LAMA2	712	MCCC2	765	MYBPC1	818	NEK8
660	LAMA4	713	MCEE	766	MYBPC3	819	NEU1
661	LAMB2	714	MECP2	767	MYF6	820	NEUROD1

821	NEUROG3	874	OPA3	927	PGK1	980	POR
822	NEXMIF	875	OPHN1	928	PGM1	981	POT1
823	NEXN	876	ORAI1	929	PHEX	982	POU1F1
824	NF1	877	ORC1	930	PHF6	983	POU3F4
825	NF2	878	ORC4	931	PHKA1	984	POU4F3
826	NFIX	879	ORC6	932	PHKA2	985	PPA2
827	NFU1	880	OTC	933	PHKB	986	PPP1CB
828	NHEJ1	881	OTOF	934	PHKG2	987	PPT1
829	NHLRC1	882	OTOG	935	PHOX2B	988	PQBP1
830	NHP2	883	OTOGL	936	PHYH	989	PRDM16
831	NHS	884	OTX2	937	PIEZO2	990	PRDM5
832	NIPBL	885	PAK3	938	PIGA	991	PREPL
833	NKX2-1	886	PALB2	939	PIK3CA	992	PRF1
834	NKX2-5	887	PANK2	940	PIK3CD	993	PRICKLE1
835	NLRC4	888	PARS2	941	PIK3R1	994	PRKAG2
836	NLRP12	889	PAX2	942	PITX2	995	PRKAR1A
837	NLRP3	890	PAX3	943	PJVK	996	PRKRA
838	NOD2	891	PAX4	944	PKD1	997	PROK2
839	NOP10	892	PAX6	945	PKD2	998	PROKR2
840	NOTCH1	893	PAX8	946	PKHD1	999	PROP1
841	NOTCH2	894	PBX1	947	PKP2	1000	PRPH2
842	NOTCH3	895	PC	948	PLA2G6	1001	PRPS1
843	NPC1	896	PCCA	949	PLCE1	1002	PRRT2
844	NPC2	897	PCCB	950	PLCG2	1003	PRSS1
845	NPHP1	898	PCDH15	951	PLEC	1004	PRX
846	NPHP3	899	PCDH19	952	PLEKHG5	1005	PSAP
847	NPHP4	900	PCNT	953	PLG	1006	PSEN1
848	NPHS1	901	PDE11A	954	PLN	1007	PSEN2
849	NPHS2	902	PDE3A	955	PLOD1	1008	PSMB8
850	NPR2	903	PDGFRB	956	PLOD2	1009	PSTPIP1
851	NR0B1	904	PDHA1	957	PLP1	1010	PTCH1
852	NR2F1	905	PDHB	958	PMM2	1011	PTCH2
853	NR3C1	906	PDHX	959	PMP22	1012	PTEN
854	NR3C2	907	PDP1	960	PMS2	1013	PTH1R
855	NR5A1	908	PDSS2	961	PNKD	1014	PTPN11
856	NRAS	909	PDX1	962	PNKP	1015	PTPRO
857	NRIP1	910	PDZD7	963	PNPLA2	1016	PTPRQ
858	NSD1	911	PEX1	964	PNPO	1017	PURA
859	NSDHL	912	PEX10	965	PNPT1	1018	PUS1
860	NSUN2	913	PEX11B	966	POLD1	1019	PYGL
861	NTHL1	914	PEX12	967	POLE	1020	PYGM
862	NUBPL	915	PEX13	968	POLG	1021	RAB27A
863	NUP107	916	PEX14	969	POLG2	1022	RAD21
864	NUP133	917	PEX16	970	POLH	1023	RAD50
865	NUP160	918	PEX19	971	POLR1C	1024	RAD51C
866	NUP205	919	PEX2	972	POLR1D	1025	RAF1
867	NUP85	920	PEX26	973	POLR3A	1026	RAG1
868	NUP93	921	PEX3	974	POLR3B	1027	RAG2
869	OBSL1	922	PEX5	975	POMGNT1	1028	RAPSN
870	OCA2	923	PEX6	976	POMGNT2	1029	RARS2
871	OCRL	924	PEX7	977	POMK	1030	RASA1
872	OFD1	925	PFKM	978	POMT1	1031	RASA2
873	OPA1	926	PGAM2	979	POMT2	1032	RB1

1033	RBM20	1086	SCNN1A	1139	SLC34A1	1192	STK11
1034	RBP3	1087	SCNN1B	1140	SLC34A3	1193	STRC
1035	RD3	1088	SCNN1G	1141	SLC35D1	1194	STX11
1036	RECQL4	1089	SCO1	1142	SLC37A4	1195	STXBP1
1037	REN	1090	SCO2	1143	SLC3A1	1196	STXBP2
1038	RET	1091	SDCCAG8	1144	SLC41A1	1197	SUCLA2
1039	RHBDF2	1092	SDHA	1145	SLC45A2	1198	SUCLG1
1040	RIT1	1093	SDHAF1	1146	SLC4A1	1199	SUFU
1041	RMND1	1094	SDHAF2	1147	SLC4A4	1200	SUOX
1042	RMRP	1095	SDHB	1148	SLC5A2	1201	SURF1
1043	RNASEH2A	1096	SDHC	1149	SLC5A7	1202	SYN1
1044	RNASEH2B	1097	SDHD	1150	SLC6A8	1203	SYNE1
1045	RNASEH2C	1098	SEC23B	1151	SLC7A9	1204	SYNGAP1
1046	RNASEL	1099	SELENON	1152	SLC9A6	1205	SYNPO
1047	RNASET2	1100	SEMA3E	1153	SLIT2	1206	SYP
1048	RNU4ATAC	1101	SERAC1	1154	SMAD4	1207	TAC3
1049	ROBO2	1102	SERPINA1	1155	SMARCA2	1208	TACO1
1050	ROM1	1103	SERPINE1	1156	SMARCA4	1209	TACR3
1051	ROR2	1104	SETX	1157	SMARCAL1	1210	TALDO1
1052	RP1	1105	SGCA	1158	SMARCB1	1211	TAZ
1053	RP2	1106	SGCB	1159	SMARCE1	1212	TBC1D1
1054	RPE65	1107	SGCD	1160	SMC1A	1213	TBCE
1055	RPGRIP1	1108	SGCE	1161	SMC3	1214	TBX1
1056	RPGRIP1L	1109	SGCG	1162	SMN1	1215	TBX18
1057	RPL5	1110	SH2D1A	1163	SMN2	1216	TBX19
1058	RPS6KA3	1111	SHOC2	1164	SMPD1	1217	TBX5
1059	RPS7	1112	SHOX	1165	SMPX	1218	TBX6
1060	RRAS	1113	SIL1	1166	SMS	1219	TCAP
1061	RRAS2	1114	SIX1	1167	SNAI2	1220	TCF4
1062	RRM2B	1115	SIX2	1168	SNTA1	1221	TCOF1
1063	RTEL1	1116	SIX5	1169	SON	1222	TCTEX1D2
1064	RUNX1	1117	SLC12A1	1170	SOS1	1223	TCTN1
1065	RUNX2	1118	SLC12A3	1171	SOS2	1224	TECTA
1066	RXYLT1	1119	SLC16A1	1172	SOX10	1225	TEK
1067	RYR1	1120	SLC16A2	1173	SOX17	1226	TERT
1068	RYR2	1121	SLC19A2	1174	SOX3	1227	TFAM
1069	SACS	1122	SLC19A3	1175	SOX9	1228	TGFB3
1070	SALL1	1123	SLC22A12	1176	SPATA7	1229	TGFBR1
1071	SALL4	1124	SLC22A5	1177	SPEG	1230	TGFBR2
1072	SAMHD1	1125	SLC24A5	1178	SPG11	1231	TH
1073	SARS2	1126	SLC25A1	1179	SPG7	1232	THAP1
1074	SATB2	1127	SLC25A13	1180	SPINK1	1233	THBD
1075	SBDS	1128	SLC25A15	1181	SPR	1234	THRA
1076	SCARB2	1129	SLC25A19	1182	SPRED1	1235	THRB
1077	SCN1A	1130	SLC25A20	1183	SPTAN1	1236	TIMM50
1078	SCN1B	1131	SLC25A22	1184	SRCAP	1237	TINF2
1079	SCN2A	1132	SLC25A3	1185	SRD5A3	1238	TJP2
1080	SCN3B	1133	SLC25A4	1186	SRGAP1	1239	TK2
1081	SCN4A	1134	SLC26A2	1187	SRY	1240	TMC1
1082	SCN4B	1135	SLC26A3	1188	STAMPB	1241	TMEM126B
1083	SCN5A	1136	SLC26A4	1189	STAT3	1242	TMEM127
1084	SCN8A	1137	SLC2A1	1190	STAT5B	1243	TMEM216
1085	SCN9A	1138	SLC2A9	1191	STIM1	1244	TMEM43

1245	TMEM67	1272	TREM2	1299	UBE2A	1326	WDR72
1246	TMEM70	1273	TRIM32	1300	UBE3A	1327	WDR73
1247	TMIE	1274	TRIM37	1301	UBR1	1328	WFS1
1248	TMPO	1275	TRIM63	1302	UGT1A1	1329	WHRN
1249	TMPRSS3	1276	TRIP11	1303	UMOD	1330	WNK1
1250	TNFRSF13B	1277	TRMU	1304	UNC13D	1331	WNK4
1251	TNFRSF13C	1278	TRPC6	1305	UPF3B	1332	WNT4
1252	TNFRSF1A	1279	TRPM4	1306	UPK3A	1333	WRN
1253	TNNC1	1280	TRPM6	1307	USH1C	1334	WT1
1254	TNNI2	1281	TRPS1	1308	USH1G	1335	XDH
1255	TNNI3	1282	TRPV4	1309	USH2A	1336	XIAP
1256	TNNT1	1283	TSC1	1310	VCL	1337	XK
1257	TNNT2	1284	TSC2	1311	VHL	1338	XPA
1258	TNXB	1285	TSFM	1312	VIPAS39	1339	XPC
1259	TOR1A	1286	TTC19	1313	VKORC1	1340	XPNPEP3
1260	TP53	1287	TTC21B	1314	VLDLR	1341	XRCC2
1261	TPK1	1288	TTC7A	1315	VPS13B	1342	XRCC4
1262	TPM1	1289	TTN	1316	VPS33B	1343	YARS2
1263	TPM2	1290	TTR	1317	VRK1	1344	ZAP70
1264	TPM3	1291	TUBB4A	1318	VWA2	1345	ZEB2
1265	TPO	1292	TWIST1	1319	VWF	1346	ZFPM2
1266	TPP1	1293	TWNK	1320	WAS	1347	ZMYM2
1267	TPRN	1294	TYMP	1321	WDR11	1348	ZNF423
1268	TRAF3IP1	1295	TYR	1322	WDR19	1349	ZNF469
1269	TRAP1	1296	TYROBP	1323	WDR34		
1270	TRAPPC2	1297	TYRP1	1324	WDR35		
1271	TRDN	1298	UBA1	1325	WDR60		