



**Carrier Panel Gene List**  
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سپاهی خاص  
شماره ثبت: ۴۱۰۴۵

تاریخ: .....  
شماره: .....  
پیوست: .....

ABCA4	ARSE	CFTR	DFNB31	FAM126A	GPR179	ITGB4	MFRP	NPHS1	PKLR	RLBP1	SLX4	UBR1
ABCB7	ARX	CHM	DFNB59	FAM20C	GPR98	ITGB4	MFSD8	NPHS2	PLA2G6	RMRP	SMN1	UGT1A1
ABCC8	ASL	CHST6	DGUOK	FANCA	GRHRP	JAK3	MGAT2	NR0B1	PLCE1	RP2	SMPD1	UQCRB
ABCD1	ASPA	CLCN1	DHCR7	FANCC	GRM6	KCNJ1	MKKS	NR2E3	PLEC	RPE65	SNAP29	UQCRQ
ACAD9	ASPM	CLCN7	DHDDS	FANCE	GRXCR1	KCNJ11	MKS1	NTRK1	PLEKHG5	RPGR	SPG11	URO5
ACADM	ASS1	CLDN14	DKC1	FANCG	GSS	KCNJ13	MLC1	NUP62	PLG	RPGRIP1L	SPG20	USH1C
ACADS	ATIC	CLDN19	DLD	FANCI	GUCY2D	KCNV2	MLYCD	NYX	PLOD1	RS1	SPG7	USH1G
ACADSB	ATM	CLN3	DLL3	FANCL	GUSB	KIF7	MMAA	OAT	PLP1	RYR1	STAR	USH2A
ACADVL	ATP7A	CLN5	DMD	FANCM	HADHA	L1CAM	MMAB	OCA2	PMM2	SACS	STIL	VDR
ACAT1	ATP7B	CLN6	DMP1	FGA	HADHB	LAMA2	MMACHC	OCRL	PNPO	SAG	STRA6	VLDLR
ACE	ATR	CLN8	DNAJC19	FBG	HBA1/HBA2	LAMA3	MMADHC	OFD1	POLG	SBDS	SUCLG1	VPS13A
ACOX1	AUH	CLRN1	DPAGT1	FGD4	HBB	LAMB3	MOCS1	OPA3	POMGNT1	SBF2	SUOX	VPS13B
ACTN4	B4GALT1	CNGA1	DPM1	FH	HESX1	LAMC2	MOCS2	OSTM1	POMT1	SC5DL	TAT	VPS33B
ADA	B9D2	CNGB1	DPYD	FHL1	HEXA	LARGE	MPI	OTC	POMT2	SCNN1A	TBCE	WAS
ADAMTS2	BBS1	CNGB3	DSP	FIG4	HEXB	LBR	MPL	OTOA	POU1F1	SCNN1B	TCAP	WDR62
ADCK3	BBS10	COL11A1	DYNC2H1	FKTN	HFE	LDHA	MPV17	OTOF	POU3F4	SCNN1G	TCIRG1	WFS1
AGA	BCHE	COL17A1	DYSF	FLNA	HGD	LEPRE1	MRPS16	PAH	PPT1	SEMA4A	TCTN1	WNT10A
AGL	BCKDHA	COL18A1	EDA	FLVCR1	HGF	LHFPL5	MRPS22	PALB2	PRCD	SEPN1	TECTA	WNT7A
AGPS	BCKDHB	COL1A2	EDN3	FOXP1	HGSNAT	LHX3	MTHFR	PANK2	PRKRA	SERPINA1	TERT	XPA
AGT	BCS1L	COL4A3	EDNRB	FRAS1	HIBCH	LIFR	MTM1	PAX3	PROC	SETX	TFR2	ZFYVE26
AGTR1	BEST1	COL4A4	EGR2	FREM2	HMGCL	LIG4	MTMR2	PC	PROM1	SGCA	TH	ZMPSTE24
AGXT	BLM	COL7A1	EIF2AK3	FUCA1	HPD	LMNA	MTTP	PCCA	PROP1	SGCB	TIMM8A	ZNF469
AHI1	BRCA2	COL9A1	EMD	FXN	HPRT1	LOXHD1	MUT	PCCB	PROS1	SGCG	TK2	
AIPL1	BRIP1	COQ2	ENO3	G6PC	HPS1	LRAT	MVK	PCDH15	PRPS1	SGSH	TMC1	
AIRE	BSCL2	CPS1	ENPP1	G6PC3	HSD17B4	LRP2	MYO15A	PDE6A	PRX	SH2D1A	TMEM216	
ALAS2	BSND	CPT1A	ERCC2	GAA	HSPG2	LRP5	MYO3A	PDE6B	PSAP	SH3TC2	TMEM67	
ALDH3A2	BTD	CPT2	ERCC3	GALC	HTRA1	LRPPRC	MYO5A	PDE6C	PSAT1	SIL1	TMIE	
ALDH4A1	BTK	CRB1	ERCC4	GALT	HYLS1	LRTOMT	MYO6	PDE6G	PTS	SLC12A1	TMPRSS3	
ALDH5A1	C10orf2	CRLF1	ERCC5	GAMT	IDH3B	MAK	MYO7A	PDHA1	PYGM	SLC12A6	TNNT1	
ALDOA	C3	CRTAP	ERCC6	GAN	IDS	MAN2B1	NAGA	PDP1	RAB23	SLC17A5	TPP1	
ALDOB	CA2	CRX	ERCC8	GBA	IDUA	MARVELD2	NAGS	PDSS1	RAB27A	SLC24A1	TPRN	
ALG1	CAPN3	CSTB	ESCO2	GBE1	IFT80	MAT1A	NBN	PDSS2	RAB3GAP1	SLC25A13	TREX1	
ALG6	CBS	CTNS	ESRRB	GCDH	IGF1	MATN3	NDRG1	PDX1	RAB3GAP2	SLC25A15	TRIM32	
ALMS1	CC2D2A	CTSD	ETFA	GDAP1	IGHMBP2	MBTPS2	NEB	PEX1	RAD51C	SLC25A22	TRIM37	
ALPL	CD2AP	CTS2	ETFB	GFM1	IKBKAP	MCCC1	NEFL	PEX10	RAG1	SLC26A2	TRIOBP	
AMACR	CD40LG	CYP21A2	ETFDH	GJB2	IL2RG	MCCC2	NEUROG3	PEX12	RAG2	SLC26A4	TSEN54	
AMT	CDH23	CYP27A1	ETHE1	GLB1	IMPDH1	MCEE	NHP2	PEX2	RAPSN	SLC26A5	TSFM	
ANOS	CDH3	CYP4V2	EYS	GLDC	IMP2	MCOLN1	NMNAT1	PEX26	RAX	SLC35A1	TSHB	
APTX	CDHR1	CYP7B1	F11	GLE1	INPP5E	MCPH1	NOP10	PEX5	RDH12	SLC35C1	TSHR	
AR	CDK5RAP2	D2HGDH	F2	GM2A	INSR	MECP2	NPC1	PEX7	RDX	SLC35D1	TPPA	
ARG1	CENPJ	DBT	F5	GNE	INVS	MED12	NPC2	PGM1	RELN	SLC37A4	TULP1	
ARL13B	CEP152	DCLRE1C	F8	GNPTAB	IQCB1	MED25	NPHP1	PHKG2	REN	SLC45A2	TYR	
ARSA	CEP290	DDB2	F9	GNS	ISCU	MEFV	NPHP3	PHYH	RGR	SLC4A11	TYRP1	
ARSB	CERKL	DDC	FAH	GPR143	ITGA6	MERTK	NPHP4	PKHD1	RHO	SLC6A8	UBA1	



**Important Notes:**

- 1- Only known exons of these genes will be examined
- 2- Repeat expansion disorders will not be covered
- 3- Genomic regions beside exons of protein-coding genes, genes that are not listed here, repeat expansions and mutations in the upstream and downstream regulatory regions will not be investigated.

**Additional Comments:**

- Although next generation sequencing (NGS) is a method of choice for high throughput sequencing purposes, **NGS has not been approved for clinical and diagnostic use**; therefore, Sanger sequencing must be done to confirm the sequencing data, particularly on identified mutations.
- Genetic counseling is recommended to explain risks and potential pitfalls of the experiment.
- It is of utmost importance for all clinicians involved in the care of families requesting molecular genetic diagnostic tests and the families themselves to be aware of the risk of errors in DNA analysis. Incorrect analysis may result from 1) incorrect data and clinical diagnosis 2) incomplete family studies and history 3) mix-up of DNA samples and mislabeling 4) rare molecular events 5) new or spontaneous mutations 6) paternity problems, adaptation, IVF, egg donor, bone marrow transplantation, recent blood product transfusion 7) maternal DNA contamination of CVS or amniotic fluid samples 8) technical errors. The risk of errors from various reasons mentioned above and several others is about 0.5%, while the chance of technical errors of all types is estimated to be around 0.5%. The risk of errors due to DNA recombination in diagnosis is approximately 0.3%. We take no responsibility about patient identity and possible mis-labeling of the DAN samples. Any feedback from our colleagues in the clinical field would be most welcomed. Comments can be given in writing or by calling my number listed below or by e-mail to: [Mohammad.ali.faghihi@gmail.com](mailto: Mohammad.ali.faghihi@gmail.com)