

## Genomic DNA Test Information

This test reads the DNA sequences of certain genes and looks for DNA differences important for your health. For some genes, a single difference increases your risk for certain diseases (Health Risk Genes). For other genes, a single sequence difference usually does not lead to disease (Carrier Genes). For those genes, two differences, one inherited from each parent, is usually necessary before health is affected.

### Health Risk Genes

#### Cardiovascular Disease Risk

ACTA2	ACTC1	ACTN2	ACVRL1	APOB	BAG3	BMPR2	CACNA1C	CACNB2	CALM1
CALM2	CALM3	CASQ2	CAV1	CAV3	COL3A1	CRYAB	CSRP3	DES	DMD
DSC2	DSG2	DSP	EMD	ENG	F2	F5	F9	FBN1	FHL1
FLNC	GDF2	GLA	GPD1L	HCN4	JUP	KCNE1	KCNE2	KCNH2	KCNJ2
KCNQ1	LAMP2	LDLR	LDLRAP1	LMNA	MYBPC3	MYH11	MYH7	MYL2	MYL3
MYLK	NKX2-5	PCSK9	PKP2	PLN	PRKAG2	PRKG1	PROC	PROS1	RBM20
RYR2	SCN5A	SERPINC1	SGCD	SMAD3	SMAD4	TCAP	TGFB2	TGFB3	TGFB3
TGFBR2	TMEM43	TNNC1	TNNI3	TNNT2	TPM1	VCL			

#### Cancer Risk

APC	ATM	AXIN2	BAP1	BARD1	BMPR1A	BRCA1	BRCA2	BRIP1	CDC73
CDH1	CDK4	CDKN2A	CHEK2	DICER1	EPCAM	FH	FLCN	GREM1	HOXB13
KIT	MAX	MEN1	MET	MITF	MLH1	MSH2	MSH3	MSH6	MUTYH
NBN	NF1	NF2	NTHL1	PALB2	PDGFRA	PMS2	POLD1	POLE	PRKAR1A
PTCH1	PTEN	RAD51C	RAD51D	RB1	RET	SDHA	SDHAF2	SDHB	SDHC
SDHD	SMAD4	SMARCA4	SMARCB1	STK11	TMEM127	TP53	TSC1	TSC2	VHL
WT1									

#### Other Risks

ATP7B	CACNA1S	HAMP	HFE	HJV	OTC	RYR1	SERPINA1	SLC40A1	TFR2
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### Carrier Genes (a wide range of disorders)

ABCB11	ABCC8	ABCD1	ACAD9	ACADM	ACADVL	ACAT1	ACOX1	ACSF3	ADA
ADAMTS2	ADGRG1	AGA	AGL	AGPS	AGXT	AIRE	ALDH3A2	ALDOB	ALG6
ALMS1	ALPL	AMT	AQP2	ARG1	ARSA	ARSB	ASL	ASNS	ASPA
ASS1	ATM	ATP6V1B1	ATP7A	ATP7B	ATRX	BBS1	BBS10	BBS12	BBS2
BCKDHA	BCKDHB	BCS1L	BLM	BSND	BTD	CAPN3	CBS	CDH23	CEP290
CERKL	CFTR	CHM	CHRNE	CIITA	CLN3	CLN5	CLN6	CLN8	CLRN1
CNGB3	COL27A1	COL4A3	COL4A4	COL4A5	COL7A1	CPS1	CPT1A	CPT2	CRB1
CTNS	CTSK	CYBA	CYBB	CYP11B1	CYP11B2	CYP17A1	CYP19A1	CYP27A1	DBT
DCLRE1C	DHCR7	DHDDS	DLD	DMD	DNAH5	DNAI1	DNAI2	DYSF	EDA
EIF2B5	ELP1	EMD	ERCC6	ERCC8	ESCO2	ETFA	ETFDH	ETHE1	EVC
EVC2	EYS	F11	F2	F5	F9	FAH	FAM161A	FANCA	FANCC
FANCG	FH	FKRP	FKTN	FMR1	G6PC	G6PD	GAA	GALC	GALK1
GALT	GAMT	GBA	GBE1	GCDH	GFM1	GJB1	GJB2	GLA	GLB1
GLDC	GLE1	GNE	GNPTAB	GNPTG	GNS	GP1BA	GP9	GRHPR	HADHA
HAX1	HBA1	HBA2	HBB	HEXA	HEXB	HFE	HGD	HGSNAT	HJV
HLCS	HMGCL	HOGA1	HPS1	HPS3	HSD17B4	HSD3B2	HYAL1	HYLS1	IDS
IDUA	IL2RG	IVD	KCNJ11	LAMA2	LAMA3	LAMB3	LAMC2	LCA5	LDLR
LDLRAP1	LHX3	LIFR	LIPA	LOXHD1	LPL	LRPPRC	MAN2B1	MCCC1	MCCC2
MCOLN1	MED17	MEFV	MESP2	MFSD8	MKS1	MLC1	MMAA	MMAB	MMACHC
MMADHC	MPI	MPL	MPV17	MTHFR	MTM1	MTRR	MTTP	MUT	MYO7A
NAGLU	NAGS	NBN	NDRG1	NDUF4F5	NDUF56	NEB	NPC1	NPC2	NPHS1
NPHS2	NR2E3	NTRK1	OAT	OPA3	OTC	PAH	PC	PCCA	PCCB
PCDH15	PDHA1	PDHB	PEX1	PEX10	PEX12	PEX2	PEX6	PEX7	PFKM
PHGDH	PKHD1	PMM2	POMGNT1	PPT1	PROP1	PRPS1	PSAP	PTS	PUS1
PYGM	RAB23	RAG2	RAPSN	RARS2	RDH12	RMRP	RPE65	RPGRIP1L	RS1
RTEL1	SACS	SAMHD1	SEPSECS	SERPINA1	SGCA	SGCB	SGCG	SGSH	SLC12A3
SLC12A6	SLC17A5	SLC22A5	SLC25A13	SLC25A15	SLC26A2	SLC26A4	SLC35A3	SLC37A4	SLC39A4
SLC4A11	SLC6A8	SLC7A7	SMARCAL1	SMN1	SMPD1	STAR	SUMF1	TAT	TCIRG1
TECPR2	TFR2	TGM1	TH	TMEM216	TPP1	TRMU	TSFM	TTPA	TYMP
USH1C	USH2A	VPS13A	VPS13B	VPS45	VRK1	VSX2	WNT10A	XPA	XPC
ZFYVE26									

For more information on these genes and their related diseases, search the gene name above at <https://ghr.nlm.nih.gov/> (Genetic Home Reference, a service of the National Library of Medicine).