

MITOXPANDED PANEL GENE LIST (~1800 GENES)

Note: Xpanded panel gene lists are regularly updated/improved. This list should be considered an approximation only as the gene list is subject to change at any time. The patient's test report includes a list of genes evaluated and includes a coverage parameter for each gene.

AAAS	AADAT	AARS	AARS2	AASS	ABAT	ABCA13	ABCA4
ABCA9	ABCB10	ABCB11	ABCB4	ABCB6	ABCB7	ABCB8	ABCB9
ABCC9	ABCD1	ABCD2	ABCD3	ABCD4	ABCF2	ABHD10	ABHD11
ACAA1	ACAA2	ACACA	ACACB	ACAD10	ACAD11	ACAD8	ACAD9
ACADL	ACADM	ACADS	ACADSB	ACADVL	ACAT1	ACAT2	ACCS
ACE	ACLY	ACN9	AC01	AC02	ACOT13	ACOT2	ACOT7
ACOT9	ACOX1	ACOX3	ACP6	ACR	ACSF2	ACSF3	ACSL1
ACSL4	ACSL5	ACSL6	ACSM1	ACSM2A	ACSM2B	ACSM3	ACSM4
ACSM5	ACSS1	ACSS3	ACTA1	ACTB	ACTG2	ACTR5	ACY2
ADAR	ADCK1	ADCK2	ADCK3	ADCK4	ADCK5	ADCY5	ADHFE1
ADNP	ADSL	AFF4	AFG3L2	AGBL5	AGK	AGL	AGMAT
AGPAT4	AGPAT5	AGPS	AGR2	AGXT	AGXT2	AHCY	AHCYL1
AHDC1	AHI1	AIFM1	AIFM2	AIFM3	AIMP1	AK2	AK3
AK4	AKAP1	AKAP10	AKR1B10	AKR1B15	AKR1D1	AKR7A2	ALAS1
ALAS2	ALDH18A1	ALDH1B1	ALDH1L1	ALDH1L2	ALDH3A2	ALDH4A1	ALDH5A1
ALDH6A1	ALDH7A1	ALDH9A1	ALDOA	ALDOB	ALG1	ALG11	ALG12
ALG13	ALG2	ALG3	ALG6	ALG8	ALG9	ALKBH1	ALKBH3
ALKBH7	ALMS1	AMACR	AMT	ANGEL2	ANO10	AP4B1	AP4E1
AP4M1	AP4S1	AP5Z1	APEX2	APOA1BP	APOC3	APOO	APOOL
APOPT1	APTX	ARF5	ARG1	ARG2	ARHGEF9	ARID1B	ARID2
ARL13B	ARL2	ARL6	ARMC10	ARSA	ARX	ASL	ASNS
ASPA	ASS1	ASXL1	ASXL3	ATAD1	ATAD3A	ATAD3B	ATF5
ATIC	ATL1	ATP10D	ATP13A2	ATP1A2	ATP1A3	ATP2A1	ATP2A2
ATP2C1	ATP5A1	ATP5B	ATP5C1	ATP5D	ATP5E	ATP5F1	ATP5G1
ATP5G2	ATP5G3	ATP5H	ATP5I	ATP5J	ATP5J2	ATP5L	ATP5O
ATP5S	ATP5SL	ATP6V0A2	ATP6V0A4	ATP6V1B1	ATP7A	ATP7B	ATP8B1
ATPAF1	ATPAF2	ATPIF1	ATRX	AUH	AURKAIP1	AUTS2	B4GALNT1
B4GALT1	B9D1	BAD	BAG3	BAK1	BBOX1	BBS2	BCAP31
BCAT1	BCAT2	BCKDHA	BCKDHB	BCKDK	BCL11A	BCL2L1	BCL2L13
BCL2L2	BCS1L	BDH1	BEST1	BHMT	BID	BIN1	BLOC1S1
BNIP3	BNIP3L	BOLA1	BOLA3	BPHL	BRAT1	BRD2	BRPF1
BSCL2	BTD	C10orf10	C10orf2	C12orf10	C12orf65	C14orf159	C14orf2
C15orf40	C15orf48	C15orf61	C17orf89	C19orf12	C19orf52	C19orf66	C19orf70
C1QBP	C20orf24	C21orf33	C2orf47	C2orf69	C2orf71	C3orf33	C5orf42
C6orf136	C6orf203	C6orf57	C7orf55	C8orf37	C8orf82	CA4	CA5A
CA5B	CACNA1A	CACNA1E	CACNA1F	CACNA1G	CACNA2D1	CAD	CALM2

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<i>CAMTA1</i>	<i>CAPN3</i>	<i>CARKD</i>	<i>CARS2</i>	<i>CASK</i>	<i>CASQ2</i>	<i>CAT</i>	<i>CBL</i>
<i>CBR3</i>	<i>CBR4</i>	<i>CBS</i>	<i>CC2D2A</i>	<i>CCBL2</i>	<i>CCDC109B</i>	<i>CCDC127</i>	<i>CCDC51</i>
<i>CCDC58</i>	<i>CCDC78</i>	<i>CCDC90B</i>	<i>CCT5</i>	<i>CCT7</i>	<i>CDC25C</i>	<i>CDHR1</i>	<i>CDK1</i>
<i>CDKL5</i>	<i>CECR5</i>	<i>CEP164</i>	<i>CEP290</i>	<i>CEP41</i>	<i>CEP89</i>	<i>CERKL</i>	<i>CFHR1</i>
<i>CFL2</i>	<i>CHAMP1</i>	<i>CHAT</i>	<i>CHCHD1</i>	<i>CHCHD3</i>	<i>CHCHD4</i>	<i>CHCHD5</i>	<i>CHCHD6</i>
<i>CHCHD7</i>	<i>CHD2</i>	<i>CHDH</i>	<i>CHKB</i>	<i>CHPT1</i>	<i>CHRM3</i>	<i>CHRN1</i>	<i>CISD1</i>
<i>CISD2</i>	<i>CISD3</i>	<i>CKB</i>	<i>CKM</i>	<i>CKMT2</i>	<i>CLCN1</i>	<i>CLCN2</i>	<i>CLCNKB</i>
<i>CLDN3</i>	<i>CLIC4</i>	<i>CLN3</i>	<i>CLN5</i>	<i>CLN6</i>	<i>CLN8</i>	<i>CLPB</i>	<i>CLPP</i>
<i>CLPX</i>	<i>CLRN1</i>	<i>CLYBL</i>	<i>CMC1</i>	<i>CMC2</i>	<i>CMC4</i>	<i>CMPK2</i>	<i>CNGA1</i>
<i>CNGB1</i>	<i>CNGB3</i>	<i>CNTN1</i>	<i>CNTNAP1</i>	<i>CNTNAP2</i>	<i>COA1</i>	<i>COA3</i>	<i>COA4</i>
<i>COA5</i>	<i>COA6</i>	<i>COA7</i>	<i>COASY</i>	<i>COG1</i>	<i>COG2</i>	<i>COG4</i>	<i>COG5</i>
<i>COG6</i>	<i>COG7</i>	<i>COG8</i>	<i>COL12A1</i>	<i>COL1A2</i>	<i>COL27A1</i>	<i>COL4A1</i>	<i>COL5A2</i>
<i>COL6A1</i>	<i>COL6A2</i>	<i>COL6A3</i>	<i>COMTD1</i>	<i>COQ10A</i>	<i>COQ10B</i>	<i>COQ2</i>	<i>COQ3</i>
<i>COQ4</i>	<i>COQ5</i>	<i>COQ6</i>	<i>COQ7</i>	<i>COQ9</i>	<i>COX10</i>	<i>COX11</i>	<i>COX14</i>
<i>COX15</i>	<i>COX16</i>	<i>COX17</i>	<i>COX18</i>	<i>COX19</i>	<i>COX20</i>	<i>COX4I1</i>	<i>COX4I2</i>
<i>COX5A</i>	<i>COX5B</i>	<i>COX6A1</i>	<i>COX6A2</i>	<i>COX6B1</i>	<i>COX6B2</i>	<i>COX6C</i>	<i>COX7A1</i>
<i>COX7A2</i>	<i>COX7A2L</i>	<i>COX7B</i>	<i>COX7B2</i>	<i>COX7C</i>	<i>COX8A</i>	<i>COX8C</i>	<i>CP</i>
<i>CPOX</i>	<i>CPS1</i>	<i>CPSF4</i>	<i>CPT1A</i>	<i>CPT1B</i>	<i>CPT1C</i>	<i>CPT2</i>	<i>CRAT</i>
<i>CRB1</i>	<i>CREBBP</i>	<i>CRLS1</i>	<i>CROT</i>	<i>CRY1</i>	<i>CRYZ</i>	<i>CS</i>	<i>CSF1R</i>
<i>CSPP1</i>	<i>CTBP1</i>	<i>CTCF</i>	<i>CTLA4</i>	<i>CTN1B</i>	<i>CTPS2</i>	<i>CTSD</i>	<i>CUL4B</i>
<i>CYB5A</i>	<i>CYB5B</i>	<i>CYB5R1</i>	<i>CYB5R2</i>	<i>CYB5R3</i>	<i>CYC1</i>	<i>CYCS</i>	<i>CYP11A1</i>
<i>CYP11B2</i>	<i>CYP24A1</i>	<i>CYP27A1</i>	<i>CYP27B1</i>	<i>CYP2U1</i>	<i>CYP7B1</i>	<i>D2HGDH</i>	<i>DAG1</i>
<i>DAP3</i>	<i>DARS</i>	<i>DARS2</i>	<i>DBI</i>	<i>DBT</i>	<i>DKF1</i>	<i>DDAH1</i>	<i>DDC</i>
<i>DDHD1</i>	<i>DDHD2</i>	<i>DDOST</i>	<i>DDX28</i>	<i>DDX3X</i>	<i>DECR1</i>	<i>DES</i>	<i>DGUOK</i>
<i>DHCR24</i>	<i>DHDDS</i>	<i>DHODH</i>	<i>DHRS1</i>	<i>DHRS4</i>	<i>DHRS7B</i>	<i>DHRSX</i>	<i>DHTKD1</i>
<i>DHX30</i>	<i>DIABLO</i>	<i>DIAPH1</i>	<i>DLAT</i>	<i>DLD</i>	<i>DLST</i>	<i>DMD</i>	<i>DMGDH</i>
<i>DNA2</i>	<i>DNAJA3</i>	<i>DNAJC11</i>	<i>DNAJC12</i>	<i>DNAJC15</i>	<i>DNAJC19</i>	<i>DNAJC28</i>	<i>DNAJC30</i>
<i>DNAJC4</i>	<i>DNAJC6</i>	<i>DNM1</i>	<i>DNM1L</i>	<i>DNM2</i>	<i>DNMT1</i>	<i>DOK7</i>	<i>DOLK</i>
<i>DPAGT1</i>	<i>DPM1</i>	<i>DPM3</i>	<i>DPYD</i>	<i>DSG2</i>	<i>DTYMK</i>	<i>DUS2</i>	<i>DUSP26</i>
<i>DUT</i>	<i>DYNC1H1</i>	<i>DYRK1A</i>	<i>DYSF</i>	<i>EARS2</i>	<i>ECH1</i>	<i>ECHDC1</i>	<i>ECHDC2</i>
<i>ECHDC3</i>	<i>ECHS1</i>	<i>ECI1</i>	<i>ECI2</i>	<i>ECSIT</i>	<i>EEF1A2</i>	<i>EEFSEC</i>	<i>EFHD1</i>
<i>EHHADH</i>	<i>EHMT1</i>	<i>EIF2B1</i>	<i>EIF2B2</i>	<i>EIF2B3</i>	<i>EIF2B4</i>	<i>EIF2B5</i>	<i>EIF5AL1</i>
<i>ELAC2</i>	<i>ELOF1</i>	<i>EMC1</i>	<i>EMC2</i>	<i>EME2</i>	<i>ENDOG</i>	<i>ENO3</i>	<i>EP300</i>
<i>EPG5</i>	<i>EPHX2</i>	<i>ERAL1</i>	<i>ERCC2</i>	<i>ERCC6L2</i>	<i>ERLIN2</i>	<i>ETFA</i>	<i>ETFB</i>
<i>ETFDH</i>	<i>ETHE1</i>	<i>EXOG</i>	<i>EXOSC3</i>	<i>EYA4</i>	<i>EYS</i>	<i>EZH2</i>	<i>FA2H</i>
<i>FABP1</i>	<i>FAH</i>	<i>FAHD1</i>	<i>FAHD2A</i>	<i>FAM126A</i>	<i>FAM136A</i>	<i>FAM161A</i>	<i>FAM162A</i>

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FAM185A	FAM195A	FAM210A	FAM210B	FAM213A	FANCA	FARS2	FASN
FASTK	FASTKD1	FASTKD2	FASTKD3	FASTKD5	FBN1	FBP1	FBXL4
FDPS	FDX1	FDX1L	FDXR	FECH	FH	FHIT	FHL1
FIG4	FIS1	FKBP10	FKBP8	FKRP	FKTN	FLAD1	FLNC
FOLR1	FOXP1	FOXRED1	FPGS	FSCN2	FTH1	FTMT	FTSJ2
FUNDC1	FUNDC2	FXN	G6PC	GAA	GABRA1	GABRB2	GABRB3
GAD1	GAD2	GADD45GIP1	GALC	GAMT	GAPDH	GARS	GATAD1
GATAD2B	GATB	GATC	GATM	GBA2	GBAS	GBE1	GCAT
GCDH	GCH1	GCSH	GDAP1	GFAP	GFER	GFM1	GFM2
GHITM	GIMAP5	GJB1	GJB2	GJC2	GK	GLA	GLB1
GLDC	GLOD4	GLRX2	GLRX5	GLS	GLS2	GLUD1	GLYAT
GLYCTK	GMPPA	GMPPB	GNAO1	GNB1	GNG5	GOLPH3	GOT2
GPAM	GPD1	GPD2	GPI	GPT2	GPX1	GPX4	GRHPR
GRIN1	GRIN2A	GRIN2B	GRPEL1	GRPEL2	GRSF1	GSR	GSS
GSTK1	GSTO1	GSTZ1	GTPBP10	GTPBP3	GTPBP6	GUCA1B	GUF1
GUK1	GYG1	GYG2	GYS1	GYS2	HAAO	HADH	HADHA
HADHB	HAGH	HAO2	HARS2	HCCS	HCFC1	HCN1	HDHD3
HEBP1	HECW2	HEMK1	HEPACAM	HEXA	HGSNAT	HIBADH	HIBCH
HIGD1A	HIGD2A	HINT1	HINT2	HINT3	HIVEP2	HK1	HK2
HLCS	HMBS	HMGCL	HMGCS2	HNF1A	HNF4A	HNRNPK	HNRNPU
HOGA1	HRSP12	HSCB	HSD17B10	HSD17B4	HSD17B8	HSD3B7	HSDL1
HSDL2	HSPA9	HSPB7	HSPD1	HSPE1	HTATIP2	HTRA2	HUWE1
IARS2	IBA57	ICT1	IDE	IDH1	IDH2	IDH3A	IDH3B
IDH3G	IDI1	IFI27	IFIH1	IFT172	IGHMBP2	IL1RAPL1	IMMP1L
IMMP2L	IMMT	IMPDH1	IMPG2	INPP5E	INSR	IQSEC2	ISCA1
ISCA2	ISCU	ISOC2	ITGA7	ITPR1	IVD	JUP	KANSL1
KARS	KAT6A	KAT6B	KAT8	KBTBD13	KCNA2	KCNC1	KCNC3
KCNJ10	KCNQ1	KCNQ2	KCNQ3	KCNT1	KCNV2	KDM5C	KDSR
KIAA0100	KIAA0141	KIAA0196	KIAA0391	KIAA1279	KIAA2022	KIF1A	KIF1B
KIF1C	KIF21A	KIF22	KIF5A	KIF7	KITLG	KIZ	KLHL7
KMO	KMT2A	KMT2D	KRT5	KYNU	L1CAM	L2HGDH	LACE1
LACTB	LACTB2	LAMA2	LAMC1	LAMP2	LAP3	LARS	LARS2
LDHA	LDHAL6B	LDHB	LDHD	LETM1	LETM2	LETMD1	LIAS
LIPA	LIPT1	LIPT2	LMBRD1	LMNA	LONP1	LONP2	LRAT
LRPPRC	LYPLA1	LYPLAL1	LYRM1	LYRM2	LYRM4	LYRM5	LYRM7
LYRM9	MACROD1	MAGEL2	MAK	MALSU1	MAOA	MAOB	MAP2K1

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MAP3K7	MAR1	MAR2	MAR5	MARS	MARS2	MAVS	MCAT
MCCC1	MCCC2	MCEE	MCOLN1	MCU	MCUR1	MDH1	MDH2
ME1	ME2	ME3	MECP2	MECR	MEF2C	MEFV	MEGF10
MEIS2	MERTK	METAP1D	METTL14	METTL15	METTL17	METTL20	METTL5
METTL8	MFF	MFN1	MFN2	MFSD8	MGARP	MGAT2	MGME1
MGST1	MGST3	MICU1	MICU2	MIEF1	MIEF2	MINOS1	MIPEP
MKS1	MLC1	MLYCD	MMAA	MMAB	MMACHC	MMADHC	MOCOS
MOCS1	MOCS2	MOCS3	MOGS	MORC2	MPC1	MPC2	MPDU1
MPDZ	MPI	MPST	MPV17	MPV17L	MPV17L2	MPZL3	MRM1
MRPL1	MRPL10	MRPL11	MRPL12	MRPL13	MRPL14	MRPL15	MRPL16
MRPL17	MRPL18	MRPL19	MRPL2	MRPL20	MRPL21	MRPL22	MRPL23
MRPL24	MRPL27	MRPL28	MRPL3	MRPL30	MRPL32	MRPL33	MRPL34
MRPL35	MRPL36	MRPL37	MRPL38	MRPL39	MRPL4	MRPL40	MRPL41
MRPL42	MRPL43	MRPL44	MRPL45	MRPL46	MRPL47	MRPL48	MRPL49
MRPL50	MRPL51	MRPL52	MRPL53	MRPL54	MRPL55	MRPL57	MRPL9
MRPS10	MRPS11	MRPS12	MRPS14	MRPS15	MRPS16	MRPS17	MRPS18A
MRPS18B	MRPS18C	MRPS2	MRPS21	MRPS22	MRPS23	MRPS24	MRPS25
MRPS26	MRPS27	MRPS28	MRPS30	MRPS31	MRPS33	MRPS34	MRPS35
MRPS36	MRPS5	MRPS6	MRPS7	MRPS9	MRRF	MRS2	MSRA
MSRB2	MSRB3	MSTO1	MTCH1	MTCH2	MTCP1	MTERF1	MTERF2
MTERF3	MTERF4	MTFMT	MTFP1	MTFR1	MTFR1L	MTG1	MTG2
MTHFD1	MTHFD1L	MTHFD2	MTHFD2L	MTHFR	MTHFS	MTIF2	MTIF3
MTM1	MTO1	MTPAP	MTR	MTRF1	MTRF1L	MTRR	MTTP
MTX1	MTX2	MUL1	MUT	MYBPC3	MYH14	MYH2	MYH6
MYH7	MYL2	MYO6	MYT1L	N6AMT1	NAA10	NADK2	NAGS
NALCN	NARS2	NBAS	NCEH1	NDRG1	NDUFA1	NDUFA10	NDUFA11
NDUFA12	NDUFA13	NDUFA2	NDUFA3	NDUFA4	NDUFA5	NDUFA6	NDUFA7
NDUFA8	NDUFA9	NDUFAB1	NDUFAF1	NDUFAF2	NDUFAF3	NDUFAF4	NDUFAF5
NDUFAF6	NDUFAF7	NDUFB1	NDUFB10	NDUFB11	NDUFB2	NDUFB3	NDUFB4
NDUFB5	NDUFB6	NDUFB7	NDUFB8	NDUFB9	NDUFC1	NDUFC2	NDUFS1
NDUFS2	NDUFS3	NDUFS4	NDUFS5	NDUFS6	NDUFS7	NDUFS8	NDUFV1
NDUFV2	NDUFV3	NEB	NEFL	NEK2	NEK9	NEU4	NF1
NFE2L2	NFIA	NFS1	NFU1	NGLY1	NGRN	NHLRC1	NHS
NIF3L1	NIPA1	NIPSNAP1	NIPSNAP3A	NIPSNAP3B	NIT1	NIT2	NKX2-1
NLN	NLRC4	NLRP3	NLRX1	NME3	NME4	NME6	NMNAT3
NNT	NOA1	NOTCH1	NOTCH3	NPC1	NPHP1	NPHP3	NPL

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<i>NR2E3</i>	<i>NR2F1</i>	<i>NR3C2</i>	<i>NRD1</i>	<i>NRF1</i>	<i>NRL</i>	<i>NRXN1</i>	<i>NSD1</i>
<i>NSUN3</i>	<i>NSUN4</i>	<i>NT5C</i>	<i>NT5C2</i>	<i>NT5DC2</i>	<i>NT5DC3</i>	<i>NT5M</i>	<i>NUBPL</i>
<i>NUCB2</i>	<i>NUDT13</i>	<i>NUDT19</i>	<i>NUDT2</i>	<i>NUDT5</i>	<i>NUDT6</i>	<i>NUDT8</i>	<i>NUDT9</i>
<i>OAT</i>	<i>OBSCN</i>	<i>OCIAD1</i>	<i>OCIAD2</i>	<i>OFD1</i>	<i>OGDH</i>	<i>OGDHL</i>	<i>OPA1</i>
<i>OPA3</i>	<i>OPHN1</i>	<i>OPN1LW</i>	<i>OSBPL1A</i>	<i>OSGEPL1</i>	<i>OTC</i>	<i>OXA1L</i>	<i>OXCT1</i>
<i>OXCT2</i>	<i>OXLD1</i>	<i>OXNAD1</i>	<i>OXR1</i>	<i>OXSM</i>	<i>P2RX2</i>	<i>P4HB</i>	<i>PABPC5</i>
<i>PABPN1</i>	<i>PACS1</i>	<i>PAC SIN2</i>	<i>PAH</i>	<i>PAICS</i>	<i>PAK7</i>	<i>PAM16</i>	<i>PANK2</i>
<i>PARL</i>	<i>PARS2</i>	<i>PC</i>	<i>PCBD1</i>	<i>PCBD2</i>	<i>PCCA</i>	<i>PCCB</i>	<i>PCDH19</i>
<i>PCK1</i>	<i>PCK2</i>	<i>PCSK9</i>	<i>PDE12</i>	<i>PDE6A</i>	<i>PDE6B</i>	<i>PDE6G</i>	<i>PDF</i>
<i>PDGFRB</i>	<i>PDHA1</i>	<i>PDHA2</i>	<i>PDHB</i>	<i>PDHX</i>	<i>PDK1</i>	<i>PDK2</i>	<i>PDK3</i>
<i>PDK4</i>	<i>PDP1</i>	<i>PDP2</i>	<i>PDPR</i>	<i>PDSS1</i>	<i>PDSS2</i>	<i>PET100</i>	<i>PET117</i>
<i>PEX1</i>	<i>PEX10</i>	<i>PEX11A</i>	<i>PEX11B</i>	<i>PEX12</i>	<i>PEX13</i>	<i>PEX14</i>	<i>PEX16</i>
<i>PEX19</i>	<i>PEX2</i>	<i>PEX26</i>	<i>PEX3</i>	<i>PEX5</i>	<i>PEX5L</i>	<i>PEX6</i>	<i>PEX7</i>
<i>PFKM</i>	<i>PGAM2</i>	<i>PGAM5</i>	<i>PGK1</i>	<i>PGM1</i>	<i>PGS1</i>	<i>PHB2</i>	<i>PHKA1</i>
<i>PHKA2</i>	<i>PHKB</i>	<i>PHKG2</i>	<i>PHYH</i>	<i>PI4KA</i>	<i>PICK1</i>	<i>PIEZO2</i>	<i>PIF1</i>
<i>PIGA</i>	<i>PIGB</i>	<i>PIGC</i>	<i>PIGF</i>	<i>PIGG</i>	<i>PIGH</i>	<i>PIGK</i>	<i>PIGL</i>
<i>PIGM</i>	<i>PIGN</i>	<i>PIGO</i>	<i>PIGP</i>	<i>PIGQ</i>	<i>PIGS</i>	<i>PIGT</i>	<i>PIGU</i>
<i>PIGV</i>	<i>PIGW</i>	<i>PIGX</i>	<i>PIGY</i>	<i>PIGZ</i>	<i>PISD</i>	<i>PITRM1</i>	<i>PKLR</i>
<i>PLA2G6</i>	<i>PLCB1</i>	<i>PLCE1</i>	<i>PLGRKT</i>	<i>PLP1</i>	<i>PMAIP1</i>	<i>PMM2</i>	<i>PMP22</i>
<i>PMPCA</i>	<i>PMPCB</i>	<i>PNKP</i>	<i>PNPLA2</i>	<i>PNPLA6</i>	<i>PNPLA8</i>	<i>PNPO</i>	<i>PNPT1</i>
<i>POC1A</i>	<i>POGZ</i>	<i>POLDIP2</i>	<i>POLG</i>	<i>POLG2</i>	<i>POLR3A</i>	<i>POLR3B</i>	<i>POLRMT</i>
<i>POMGNT1</i>	<i>PPA2</i>	<i>PPARGC1A</i>	<i>PPARGC1B</i>	<i>PPIF</i>	<i>PPM1K</i>	<i>PPOX</i>	<i>PPP2R1A</i>
<i>PPP2R5D</i>	<i>PPT1</i>	<i>PPTC7</i>	<i>PPWD1</i>	<i>PRCD</i>	<i>PRDM16</i>	<i>PRDX2</i>	<i>PRDX3</i>
<i>PRDX4</i>	<i>PRDX5</i>	<i>PRDX6</i>	<i>PRELID1</i>	<i>PRELID2</i>	<i>PREPL</i>	<i>PRKAA1</i>	<i>PRKAB1</i>
<i>PRKAG2</i>	<i>PRKAR1A</i>	<i>PRODH</i>	<i>PRODH2</i>	<i>PROM1</i>	<i>PROSC</i>	<i>PRPF3</i>	<i>PRPF31</i>
<i>PRPF4</i>	<i>PRPF6</i>	<i>PRPF8</i>	<i>PRPS1</i>	<i>PRSS35</i>	<i>PSPH</i>	<i>PSTK</i>	<i>PTCD1</i>
<i>PTCD2</i>	<i>PTCD3</i>	<i>PTEN</i>	<i>PTGES2</i>	<i>PTPMT1</i>	<i>PTPN11</i>	<i>PTPN4</i>	<i>PTRH1</i>
<i>PTRH2</i>	<i>PTS</i>	<i>PURA</i>	<i>PUS1</i>	<i>PUSL1</i>	<i>PXMP2</i>	<i>PXMP4</i>	<i>PYCR1</i>
<i>PYCR2</i>	<i>PYGL</i>	<i>PYGM</i>	<i>QARS</i>	<i>QDPR</i>	<i>QRSL1</i>	<i>QTRT1</i>	<i>RAB11FIP5</i>
<i>RAB24</i>	<i>RAB32</i>	<i>RAB35</i>	<i>RAI1</i>	<i>RAPSN</i>	<i>RARS</i>	<i>RARS2</i>	<i>RBFA</i>
<i>RBP3</i>	<i>RCN2</i>	<i>RDH11</i>	<i>RDH13</i>	<i>RDH14</i>	<i>RECQL4</i>	<i>REEP1</i>	<i>REXO2</i>
<i>RFK</i>	<i>RFT1</i>	<i>RGR</i>	<i>RHO</i>	<i>RHOT1</i>	<i>RHOT2</i>	<i>RMDN1</i>	<i>RMDN3</i>
<i>RMND1</i>	<i>RNASEH1</i>	<i>RNASEH2A</i>	<i>RNASEH2B</i>	<i>RNASEH2C</i>	<i>RNMTL1</i>	<i>ROM1</i>	<i>ROMO1</i>
<i>RP1</i>	<i>RP2</i>	<i>RP9</i>	<i>RPE65</i>	<i>RPGR</i>	<i>RPGRIP1L</i>	<i>RPIA</i>	<i>RPL10</i>
<i>RPL10A</i>	<i>RPL34</i>	<i>RPL35A</i>	<i>RPL5</i>	<i>RPS14</i>	<i>RPS15A</i>	<i>RPS18</i>	<i>RPUSD3</i>
<i>RPUSD4</i>	<i>RRM2B</i>	<i>RSAD1</i>	<i>RSPH9</i>	<i>RTN2</i>	<i>RTN4IP1</i>	<i>RYR1</i>	<i>SACS</i>

MITOXPANDED PANEL GENE LIST (~1800 GENES)

Note: Xpanded panel gene lists are regularly updated/improved. This list should be considered an approximation only as the gene list is subject to change at any time. The patient's test report includes a list of genes evaluated and includes a coverage parameter for each gene.

SAG	SAMHD1	SAMM50	SARDH	SARS2	SATB2	SBDS	SCCPDH
SCN11A	SCN1A	SCN2A	SCN3B	SCN5A	SCN8A	SCN9A	SCO1
SCO2	SCP2	SDHA	SDHAF1	SDHAF2	SDHB	SDHC	SDHD
SDR39U1	SDSL	SECISBP2	SELO	SEMA4A	SEPN1	SEPSECS	SEPT4
SERAC1	SERPINA1	SERPINI1	SETBP1	SETD2	SETD5	SETD9	SFXN1
SFXN2	SFXN3	SFXN4	SFXN5	SGCA	SGCE	SGSH	SH3TC2
SHANK2	SHANK3	SHMT1	SHMT2	SIRT3	SIRT4	SIRT5	SLC13A5
SLC16A1	SLC16A11	SLC16A2	SLC16A7	SLC19A2	SLC19A3	SLC1A3	SLC1A4
SLC22A4	SLC22A5	SLC24A1	SLC25A1	SLC25A10	SLC25A11	SLC25A12	SLC25A13
SLC25A14	SLC25A15	SLC25A16	SLC25A17	SLC25A18	SLC25A19	SLC25A2	SLC25A20
SLC25A21	SLC25A22	SLC25A23	SLC25A24	SLC25A25	SLC25A26	SLC25A27	SLC25A28
SLC25A29	SLC25A3	SLC25A30	SLC25A31	SLC25A32	SLC25A33	SLC25A34	SLC25A35
SLC25A36	SLC25A37	SLC25A38	SLC25A39	SLC25A4	SLC25A40	SLC25A41	SLC25A42
SLC25A43	SLC25A44	SLC25A45	SLC25A46	SLC25A47	SLC25A48	SLC25A5	SLC25A51
SLC25A53	SLC25A6	SLC29A3	SLC2A1	SLC2A2	SLC30A6	SLC30A9	SLC33A1
SLC35A1	SLC35A2	SLC35C1	SLC37A4	SLC38A8	SLC52A2	SLC52A3	SLC6A8
SLC7A14	SLC7A7	SLC7A9	SLC9A6	SLC01B1	SLIRP	SLMO1	SLMO2
SMAD4	SMARCA2	SMARCB1	SMC3	SMDT1	SNAP29	SND1	SNRNP200
SOD2	SOX10	SOX11	SOX17	SPAST	SPATA19	SPATA20	SPATA5
SPATA7	SPG11	SPG20	SPG21	SPG7	SPIRE1	SPR	SPRYD4
SPTBN2	SPTLC1	SPTLC2	SQRDL	SQSTM1	SRD5A3	SSBP1	SSR4
STAR	STARD7	STOM	STOML1	STOML2	STRADA	STT3A	STT3B
STUB1	STX17	STXBP1	SUCLA2	SUCLG1	SUCLG2	SUGCT	SUOX
SUPV3L1	SURF1	SYNJ2BP	SYT14	TACO1	TAF1	TALDO1	TAMM41
TANGO2	TAP1	TAP2	TARS	TARS2	TAT	TAZ	TBC1D24
TBCD	TBCK	TBRG4	TCAIM	TCF4	TCHP	TCIRG1	TCTN1
TCTN2	TCTN3	TDP1	TDRD7	TDRKH	TECPR2	TEFM	TFAM
TFB1M	TFB2M	TH	THAP1	THEM4	THEM5	THG1L	THNSL1
TIMM10	TIMM10B	TIMM13	TIMM17A	TIMM17B	TIMM21	TIMM22	TIMM44
TIMM50	TIMM8A	TIMM8B	TIMM9	TIMMDC1	TIRAP	TJP2	TK2
TKT	TMBIM4	TMEM11	TMEM126A	TMEM126B	TMEM138	TMEM143	TMEM14C
TMEM165	TMEM177	TMEM186	TMEM205	TMEM216	TMEM237	TMEM261	TMEM65
TMEM67	TMEM70	TMLHE	TNNT1	TOMM20	TOMM22	TOMM34	TOMM40
TOMM40L	TOMM5	TOMM6	TOMM7	TOMM70A	TOP1MT	TOP3A	TOPORS
TOR1A	TPI1	TPK1	TPP1	TRAP1	TRAPPC11	TRAPPC2	TRIAP1
TRIM37	TRIOBP	TRIT1	TRMT1	TRMT10C	TRMT11	TRMT2B	TRMT5

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<i>TRMT61B</i>	<i>TRMU</i>	<i>TRNT1</i>	<i>TRPV4</i>	<i>TRUB2</i>	<i>TSEN2</i>	<i>TSEN34</i>	<i>TSEN54</i>
<i>TSFM</i>	<i>TSPO</i>	<i>TST</i>	<i>TSTD1</i>	<i>TSTD3</i>	<i>TTC19</i>	<i>TTC21B</i>	<i>TTC8</i>
<i>TTN</i>	<i>TUBA1A</i>	<i>TUBB2A</i>	<i>TUBB3</i>	<i>TUBB4A</i>	<i>TUFM</i>	<i>TULP1</i>	<i>TUSC3</i>
<i>TXN2</i>	<i>TXNDC12</i>	<i>TXNRD1</i>	<i>TXNRD2</i>	<i>TYMP</i>	<i>TYSND1</i>	<i>UBE3A</i>	<i>UCHL1</i>
<i>UCP1</i>	<i>UCP2</i>	<i>UCP3</i>	<i>UNC13D</i>	<i>UNC80</i>	<i>UNG</i>	<i>UQCC1</i>	<i>UQCC2</i>
<i>UQCC3</i>	<i>UQCR10</i>	<i>UQCR11</i>	<i>UQCRB</i>	<i>UQCRC1</i>	<i>UQCRC2</i>	<i>UQCRFS1</i>	<i>UQCRH</i>
<i>UQCRQ</i>	<i>USH2A</i>	<i>USMG5</i>	<i>USP14</i>	<i>USP9X</i>	<i>VAMP1</i>	<i>VARS2</i>	<i>VDAC1</i>
<i>VDAC2</i>	<i>VDAC3</i>	<i>VMA21</i>	<i>VPS13A</i>	<i>VPS13B</i>	<i>VPS13C</i>	<i>VPS37A</i>	<i>VRK1</i>
<i>VWA8</i>	<i>WAC</i>	<i>WARS2</i>	<i>WDR19</i>	<i>WDR45</i>	<i>WDR81</i>	<i>WFS1</i>	<i>WHSC1</i>
<i>WWOX</i>	<i>XPNPEP3</i>	<i>XRCC6BP1</i>	<i>YARS2</i>	<i>YBEY</i>	<i>YME1L1</i>	<i>YTHDF2</i>	<i>ZADH2</i>
<i>ZAK</i>	<i>ZC4H2</i>	<i>ZEB2</i>	<i>ZFYVE26</i>	<i>ZFYVE27</i>	<i>ZNF408</i>	<i>ZNF423</i>	<i>ZNF513</i>
<i>ZNF680</i>	<i>ZNF682</i>						



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