

## CARDIOMETABOLIC DISORDERS PANEL (523 GENES)

A2ML1, ABCC9, ABCG5, ABCG8, ACADVL, ACTA1, ACTA2, ACTC1, ACTN2, ACVR2B, ACVRL1, ADAMTS2, AGL, AKAP9, ALMS1, ANK2, ANKRD1, ANO5, APOB, ATP2A1, ATP7A, B3GALNT2, B4GAT1, BAG3, BCOR, BIN1, BMPR1B, BMPR2, BRAF, CACNA1C, CACNA2D1, CACNB2, CALM1, CALM2, CALM3, CALR3, CAPN3, CASQ2, CAV1, CAV3, CBL, CBS, CCDC78, CFL2, CHD7, CHKB, CHRM2, CHST14, CNTN1, COL12A1, COL1A1, COL1A2, COL3A1, COL5A1, COL5A2, COL6A1, COL6A2, COL6A3, CPT2, CRELD1, CRTAP, CRYAB, CSRP3, CTF1, CTNNA3, DAG1, DEPDC5, DES, DMD, DNAJB6, DNAJC19, DNM2, DOLK, DPM1, DPM2, DPM3, DSC2, DSG2, DSP, DTNA, DYSF, EFEMP2, ELAC2, ELN, EMD, ENG, EYA4, FBN1, FBN2, FHL1, FHL2, FKBP14, FKRP, FKTN, FLNA, FLNC, FOXE3, FOXH1, GAA, GATA4, GATA6, GATAD1, GDF1, GDF2, GJA1, GJA5, GLA, GMPPB, GNE, GPC3, GPD1L, GYS1, HAMP, HAND1, HCN4, HFE, HJV, HNRNPDL, HRAS, ILK, ISPD, ITGA7, JAG1, JPH2, JUP, KBTBD13, KCNA1, KCNA5, KCND3, KCNE1, KCNE2, KCNE3, KCNE5, KCNH2, KCNJ2, KCNJ5, KCNJ8, KCNK3, KCNQ1, KCNQ2, KCNQ3, KCNT1, KLHL40, KLHL41, KRAS, LAMA2, LAMA4, LAMP2, LARGE1, LDB3, LDLR, LDLRAP1, LEFTY2, LIMS2, LMNA, LMOD3, LRRC10, MAP2K1, MAP2K2, MAT2A, MATR3, MED12, MED13L, MEGF10, MEIS2, MTM1, MTO1, MYBPC3, MYF6, MYH11, MYH6, MYH7, MYL2, MYL3, MYL4, MYLK, MYLK2, MYOM1, MYOT, MYOZ2, MYPN, NEB, NEBL, NEXN, NF1, NKX2-5, NKX2-6, NODAL, NOTCH1, NPPA, NR2F2, NRAS, NSD1, P3H1, PCDH19, PCSK9, PDLIM3, PKP2, PLEC, PLEKHM2, PLN, PLOD1, PNPLA2, POMGNT1, POMGNT2, POMK, POMT1, POMT2, PRDM16, PRKAG2, PRKG1, PRRT2, PTPN11, RAF1, RANGRF, RASA1, RBM20, RIT1, RRAS, RXYLT1, RYR1, RYR2, SCN10A, SCN1A, SCN1B, SCN2B, SCN3B, SCN4B, SCN5A, SCN8A, SCN9A, SDHA, SELENON, SEMA3E, SGCA, SGCB, SGCD, SGCG, SHOC2, SKI, SLC22A5, SLC2A1, SLC2A10, SLC39A13, SLC40A1, SLMAP, SMAD3, SMAD4, SMAD6, SMAD9, SNTA1, SOS1, SOS2, SPRED1, SQSTM1, STAC3, STIM1, SUN1, SUN2, SYNE1, SYNE2, TAZ, TBX1, TBX5, TCAP, TFR2, TGFB2, TGFB3, TGFB1, TGFB2, TIA1, TMEM43, TMEM70, TMPO, TNNC1, TNNI3, TNNT1, TNNT2, TNPO3, TOR1AIP1, TPM1, TPM2, TPM3, TRAPPC11, TRDN, TRIM32, TRPM4, TTN, TTR, TXNRD2, VCL, VCP, ZFPM2, ZIC3, ABCC8, APPL1, BLK, EIF2AK3, FOXP3, GCK, GLIS3, HNF1A, HNF1B, HNF4A, IER3IP1, INS, KCNJ11, KLF11, MNX1, NEUROD1, NEUROG3, NKX2-2, PAX4, PDX1, PPARG, PTF1A, RFX6, SLC19A2, WFS1, ZFP57, AIRE, CASR, CYP24A1, FAM111A, GATA3, GCM2, GNA11, GNAS, HADHA, HADHB, PDE4D, PTH, PTH1R, SLC34A1, STX16, TBCE, ADCY3, AFF4, ARL6, BBIP1, BBS1, BBS10, BBS12, BBS2, BBS4, BBS5, BBS7, BBS9, BDNF, C8ORF37, CEP164, CEP19, CEP290, CPE, CREBBP, CUL4B, DYRK1B, EP300, FBN3, GPR101, IFT172, IFT27, IFT74, KDM6A, KIDINS220, KIF7, KMT2D, KSR2, LEP, LEPR, LZTFL1, MAGEL2, MC3R, MC4R, MEGF8, MKKS, MKS1, MRAP2, NLGN2, NPY, NROB2, NTRK2, PCSK1, PHF6, POMC, PRMT7, RAB23, RAI1, RPS6KA3, SCLT1, SDCCAG8, SETD2, SH2B1, SIM1, TRAPPC3, TRAPPC9, TTC8, UCP3, VPS13B, WDPCP, ABCA1, ANGPTL3, APOA1, APOA5, APOC2, CETP, CREB3L3, CYP27A1, GPD1, GPIHBP1, LCAT, LIPA, LIPG, LMF1, LPL, LRP6, MTPP, SAR1B, APOA4, APOC3, CYP7A1, GALNT2, GCKR, LIPC, LIPI, MYLIP, PLTP, SCARB1, ZHX3, AAAS, ABCD1, ACAD9, ACADM, ACADS, ACADSB, ACAT1, ACSF3, ADK, AKT2, ALDOA, ALDOB, ALG3, ALG6, BCKDHA, BCKDHB, CA5A, CACNA1D, CDKN1C, COG7, CPT1A, CYP7B1, DBH, DBT, DDC, DGUOK, DLD, DMXL2, ENO3, ETFA, ETFB, ETFDH, FAH, FBP1, FLAD1, G6PC, GALE, GALK1, GALT, GBE1, GH1, GHR, GLUD1, GYG1, GYS2, HADH, HESX1, HK1, HMGCL, HMGCS2, HSD3B7, INSR, LDHA, LHX3, MLYCD, MPI, MPV17, NADK2, NNT, NROB1, NR3C1, OPLAH, OTX2, OXCT1, PC, PCK1, PCK2, PFKM, PGAM2, PGM1, PHGDH, PHKA1, PHKA2, PHKB, PHKG2, PMM2, PROP1, PYGL, PYGM, RBCK1, SERAC1, SLC16A1, SLC25A20, SLC25A32, SLC2A2, SLC37A4, SLC52A1, SLC52A2, SLC52A3, SOX2, SOX3, TBX19, TRMT10A, UCP2.