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Cardiovascular Panels

Cardiomyopathy, Arrhythmia and Sudden Death Panel (127 genes)
(EPIC Order code=LAB17037) (CPT code=81479)

ABCC9, ACADVL, ACTC1, ACTN2, AGL, ALMS1, ALPK3, ANK2, ANKRD1, BAG3, BRAF, CACNA1C, CACNA1D, CALM1, CALM2, CALM3, CASQ2, CAV3, CBL, CDH2, CPT2, CRYAB, CSRP3, CTF1, CTNNA3, DES, DMD, DNAJC19, DOLK, DSC2, DSG2, DSP, DTNA, ELAC2, EMD, EYA4, FHL1, FKRP, FKTN, FLNC, GAA, GATA4, GATA5, GATA6, GATAD1, GJA5, GLA, GPD1L, HAND1, HCN4, HRAS, ILK, JPH2, JUP, KCNE1, KCNH2, KCNJ2, KCNK3, KCNQ1, KLF10, KRAS, LAMA4, LAMP2, LDB3, LMNA, LZTR1, MAP2K1, MAP2K2, MRAS, MTO1, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYL4, MYLK3, MYPN, NEBL, NEXN, NF1, NKX2-5, NRAS, PCCA, PCCB, PDLIM3, PKP2, PLEKHM2, PLN, PPA2, PPCS, PPP1CB, PRDM16, PRKAG2, PTPN11, RAF1, RASA1, RASA2, RBM20, RIT1, RRAS, RYR2, SCN5A, SDHA, SGCD, SHOC2, SLC4A3, SLC22A5, SOS1, SOS2, SPRED1, TAFAZZIN, TBX20, TCAP, TMEM43, TMEM70, TMPO, TNNC1, TNNI3, TNNI3K, TNNT2, TPM1, TRDN, TRPM4, TTN, TTR, VCL

This comprehensive panel tests for genes associated with inherited heart rhythm and heart muscle conditions, including but not limited to long QT syndrome, short QT syndrome, catecholaminergic polymorphic ventricular tachycardia (CPVT), Brugada syndrome, arrhythmogenic right ventricular cardiomyopathy (ARVC), dilated cardiomyopathy (DCM), hypertrophic cardiomyopathy (HCM), and left ventricular noncompaction (LVNC). For individuals with symptoms, genetic testing can help confirm a diagnosis, assess risks, and guide treatment. Family members without symptoms may also benefit from testing if a known genetic change is present, allowing them to take steps to prevent symptoms by avoiding certain activities or medications.

Cardiomyopathy Panel (106 genes)
(EPIC Order code=LAB17076) (CPT code=81439)

ABCC9, ACADVL, ACTC1, ACTN2, AGL, ALMS1, ALPK3, ANKRD1, BAG3, BRAF, CACNA1C, CAV3, CBL, CDH2, CPT2, CRYAB, CSRP3, CTF1, DES, DMD, DNAJC19, DOLK, DSC2, DSG2, DSP, DTNA, ELAC2, EMD, EYA4, FHL1, FKRP, FKTN, FLNC, GAA, GATAD1, GLA, HAND1, HCN4, HRAS, ILK, JPH2, JUP, KLF10, KRAS, LAMA4, LAMP2, LDB3, LMNA, LZTR1, MAP2K1, MAP2K2, MRAS, MTO1, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYLK3, MYPN, NEBL, NEXN, NF1, NKX2-5, NRAS, PCCA, PCCB, PDLIM3, PKP2, PLEKHM2, PLN, PPA2, PPCS, PPP1CB, PRDM16, PRKAG2, PTPN11, RAF1, RASA1, RASA2, RBM20, RIT1, RRAS, RYR2, SCN5A, SDHA, SGCD, SHOC2, SLC22A5, SOS1, SOS2, SPRED1, TAFAZZIN, TBX20, TCAP, TMEM43, TMEM70, TMPO, TNNC1, TNNI3, TNNI3K, TNNT2, TPM1, TTN, TTR, VCL

This test provides a comprehensive analysis of genes associated with inherited cardiomyopathy, a group of conditions where the heart muscle becomes enlarged, stiff, or weak. For individuals showing clinical symptoms, genetic testing can help confirm or establish a diagnosis, assess risks, and guide management decisions. Asymptomatic family members with a known pathogenic variant may also benefit by identifying their risk early and taking steps to avoid activities or medications that could trigger symptoms.

Arrhythmia Panel (59 genes)
(EPIC Order code=LAB17077) (CPT code=81413)

ABCC9, ACTC1, ACTN2, ANK2, BAG3, BRAF, CACNA1C, CACNA1D, CALM1, CALM2, CALM3, CASQ2, CAV3, CDH2, CTNNA3, DES, DMD, DSC2, DSG2, DSP, EMD, FLNC, GATA4, GATA5, GJA5, GLA, GPD1L, HCN4, JUP, KCNE1, KCNH2, KCNJ2, KCNK3, KCNQ1, LAMP2, LDB3, LMNA, MYBPC3, MYH6, MYH7, MYL2, MYL3, MYL4, NKX2-5, PKP2, PLN, PPA2, PRKAG2, RBM20, RYR2, SCN5A, SLC4A3, TMEM43, TNNI3, TNNI3K, TNNT2, TRDN, TRPM4, TTN

This panel tests for genes associated with inherited heart rhythm disorders (arrhythmias), such as long QT syndrome, short QT syndrome,

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catecholaminergic polymorphic ventricular tachycardia (CPVT), and Brugada syndrome. For individuals with symptoms, genetic testing can help confirm a diagnosis, clarify risks, and guide treatment decisions. Family members without symptoms may also benefit from testing if a known genetic change is present, as it can help them take steps to avoid activities or medications that might trigger irregular heart rhythms.

Pulmonary Hypertension Panel (14 genes)
(EPIC Order code: LAB17039) (CPT code=81479)
ACVRL1, AQP1, ATP13A3, BMPR1B, BMPR2, CAV1, EIF2AK4, ENG, GDF2, KCNA5, KCNK3, SMAD9, SOX17, TBX4

This panel tests genes associated with pulmonary hypertension and related conditions, including pulmonary veno-occlusive disease (PVOD), hereditary hemorrhagic telangiectasia (HHT), and ischiocoxopodopatellar syndrome (ICPPS). Pulmonary arterial hypertension (PAH) happens when the arteries in the lungs become narrowed or blocked, causing high blood pressure in these arteries and the right ventricle of the heart. Over time, this pressure can lead to progressive heart failure. Genetic testing may be useful for people who have a clinical diagnosis of PAH with no other known cause, signs like a heart murmur or enlarged right ventricle, or symptoms of right ventricular failure.

Aortopathy and FTAAD Panel (35 genes)
(EPIC Order code=LAB17038) (CPT code=81410)
ACTA2, ADAMTS10, ARIH1, BGN, CBS, COL3A1, COL5A1, COL5A2, EFEMP2, FBN1, FBN2, FLNA, FOXE3, HCN4, LOX, LTBP3, MAT2A, MED12, MFAP5, MYH11, MYLK, NOTCH1, PLOD1, PLOD3, PRKG1, SKI, SLC2A10, SMAD2, SMAD3, SMAD4, SMAD6, TGFB2, TGFB3, TGFBR1, TGFBR2

This panel provides a detailed analysis of genes associated with aortopathy and related conditions, such as Familial Thoracic Aortic Aneurysm and Dissection (FTAAD). Identifying genetic variants can help confirm a diagnosis, guide treatment decisions, and find family members who may be at risk so they can receive early screening and care.

Familial Hypercholesterolemia Panel (36 genes)
(EPIC Order code=LAB11335) (CPT code=81479)
ABCA1, ABCG5, ABCG8, ANGPTL3, APOA1, APOA4, APOA5, APOB, APOC2, APOC3, CETP, CREB3L3, CYP27A1, CYP7A1, GALNT2, GCKR, GPD1, GPIHBP1, LCAT, LDLR, LDLRAP1, LIPA, LIPC, LIPG, LIPI, LMF1, LPL, LRP6, MTTP, MYLIP, PCSK9, PLTP, PNPLA2, SAR1B, SCARB1, ZHX3

This test analyzes genes associated with familial hypercholesterolemia (FH), an inherited condition that causes high levels of low-density lipoprotein cholesterol (LDL-C). Elevated LDL-C can lead to plaque buildup in the arteries, raising the risk of early heart disease. Genetic testing can confirm an FH diagnosis and help guide treatment. It can also find family members who may be at risk, so they can start preventive care early. With medication, a healthy diet, and lifestyle changes, individuals with FH can reduce their risk of heart disease.