

INVITAE CARDIOLOGY GENETIC TESTS

A comprehensive menu for heritable heart and vascular conditions curated by medical genetics experts for specific indications and clinical scenarios.

CLINICAL AREA: CARDIOLOGY

ARRHYTHMIA AND CARDIOMYOPATHY

Invitae Arrhythmia and Cardiomyopathy Comprehensive Panel (up to 149 genes)

Primary panel (67 genes)

ABCC9	ACTC1	ACTN2	AGL	ANK2	BAG3	CACNA1C	CACNB2	CALM1	CALM2	CALM3	CASQ2
CAV3	CRYAB	CSRP3	DES	DMD	DOLK	DSC2	DSG2	DSP	EMD	EYA4	FHL1
FKRP	FKTN	FLNC	GAA	GLA	GPD1L	HCN4	JUP	KCNA5	KCNE1	KCNE2	KCNH2
KCNJ2	KCNQ1	LAMP2	LMNA	MYBPC3	MYH7	MYL2	MYL3	MYL4	NKX2-5	PKP2	PLN
PRKAG2	RAF1	RBM20	RYR2	SCN5A	SGCD	SLC22A5	TAZ	TCAP	TGFB3	TMEM43	TNNC1
TNNI3	TNNT2	TPM1	TRDN	TTN		VCL					

Add-on preliminary-evidence genes (47 genes)

AKAP9	ANKRD1	CACNA2D1	CALR3	CHRM2	CTF1	CTNNA3	DTNA	FHL2	GATA4	GATA6	GATAD1
GJA5	ILK	JPH2	KCND3	KCNE3	KCNE5	KCNJ5	KCNJ8	KCNK3	LAMA4	LDB3	LRRC10
MED12	MYH6	MYLK2	MYOM1	MYOZ2	MYPN	NEBL	NEXN	NPPA	PDLIM3	PLEKHM2	PRDM16
RANGRF	SCN10A	SCN1B	SCN2B	SCN3B	SCN4B	SLMAP	SNTA1	TMPO	TRPM4	TXNRD2	

Add-on RASopathy genes not included in panel (17 genes)

A2ML1	BRAF	CBL	HRAS	KRAS	MAP2K1	MAP2K2	NF1	NRAS	PTPN11	RASA1	RIT1
RRAS	SHOC2	SOS1	SOS2	SPRED1							

Add-on autosomal recessive syndromic pediatric cardiomyopathy genes (8 genes)

ACADVL	ALMS1	CPT2	DNAJC19	ELAC2	MTO1	SDHA	TMEM70				
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Add-on sudden unexpected death in epilepsy (SUDEP) genes for arrhythmia and cardiomyopathy (10 genes)

DEPDC5	KCNQ2	KCNQ3	KCNT1	PCDH19	PRRT2	SCN1A	SCN8A	SCN9A	SLC2A1		
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ARRHYTHMIA

Invitae Arrhythmia Comprehensive Panel (up to 73 genes)

Primary panel (39 genes)

ABCC9	ACTN2	ANK2	CACNA1C	CACNB2	CALM1	CALM2	CALM3	CASQ2	CAV3	DES	DSC2
DSG2	DSP	EMD	FLNC	GPD1L	HCN4	JUP	KCNA5	KCNE1	KCNE2	KCNH2	KCNJ2
KCNQ1	LMNA	MYL4	NKX2-5	PKP2	PLN	PRKAG2	RBM20	RYR2	SCN5A	TMEM43	TNNI3
TNNT2	TRDN	TTN									

Add-on preliminary-evidence genes (24 genes)

AKAP9	ANKRD1	CACNA2D1	CTNNA3	GJA5	KCND3	KCNE3	KCNE5	KCNJ5	KCNJ8	KCNK3	LDB3
NPPA	PDLIM3	RANGRF	SCN10A	SCN1B	SCN2B	SCN3B	SCN4B	SLMAP	SNTA1	TGFB3	TRPM4

Add-on sudden unexpected death in epilepsy (SUDEP) genes for arrhythmia (10 genes)

DEPDC5	KCNQ2	KCNQ3	KCNT1	PCDH19	PRRT2	SCN1A	SCN8A	SCN9A	SLC2A1		
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Invitae Arrhythmogenic Cardiomyopathy Panel (up to 24 genes)

Primary panel (19 genes)

ACTN2	DES	DSC2	DSG2	DSP	EMD	FLNC	JUP	LMNA	PKP2	PLN	PRKAG2
RBM20	RYR2	SCN5A	TMEM43	TNNI3	TNNT2	TTN					

Add-on preliminary-evidence genes (5 genes)

ANKRD1	CTNNA3	LDB3	PDLIM3	TGFB3							
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Invitae Brugada Syndrome Panel (up to 20 genes)

Primary panel (8 genes)

ABCC9	CACNA1C	CACNB2	GPD1L	HCN4	KCNH2	PKP2	SCN5A				
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Add-on preliminary-evidence genes (12 genes)

CACNA2D1	KCND3	KCNE3	KCNE5	KCNJ8	RANGRF	SCN10A	SCN1B	SCN2B	SCN3B	SLMAP	TRPM4
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Invitae Catecholaminergic Polymorphic Ventricular Tachycardia Panel (8 genes)

Primary panel (8 genes)

ANK2	CALM1	CALM2	CALM3	CASQ2	KCNJ2	RYR2	TRDN				
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Invitae Long QT Syndrome Panel (up to 17 genes)

Primary panel (13 genes)

ANK2	CACNA1C	CALM1	CALM2	CALM3	CAV3	KCNE1	KCNE2	KCNH2	KCNJ2	KCNQ1	SCN5A
TRDN											

Add-on preliminary-evidence genes (4 genes)

AKAP9	KCNJ5	SCN4B	SNTA1								
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Invitae Short QT Syndrome Panel (up to 6 genes)

Primary panel (5 genes)

CACNA1C	CACNB2	KCNH2	KCNJ2	KCNQ1							
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Add-on preliminary-evidence gene (1 gene)

CACNA2D1											
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INVITAE CARDIOLOGY GENETIC TESTS (continued)

CARDIOMYOPATHY

Invitae Cardiomyopathy Comprehensive Panel (up to 106 genes)	Primary panel (50 genes)											
	ABCC9	ACTC1	ACTN2	AGL	BAG3	CACNA1C	CAV3	CRYAB	CSRP3	DES	DMD	DOLK
	DSC2	DSG2	DSP	EMD	EYA4	FHL1	FKRP	FKTN	FLNC	GAA	GLA	HCN4
	JUP	LAMP2	LMNA	MYBPC3	MYH7	MYL2	MYL3	PKP2	PLN	PRKAG2	RAF1	RBM20
	RYR2	SCN5A	SGCD	SLC22A5	TAZ	TCAP	TMEM43	TNNC1	TNNI3	TNNT2	TPM1	TTN
	TTR	VCL										
	Add-on preliminary-evidence genes (31 genes)											
	ANKRD1	CALR3	CHRM2	CTF1	CTNNA3	DTNA	FHL2	GATA4	GATA6	GATAD1	ILK	JPH2
	LAMA4	LDB3	LRRC10	MED12	MYH6	MYLK2	MYOM1	MYOZ2	MYPN	NEBL	NEXN	NKX2-5
	NPPA	PDLIM3	PLEKHM2	PRDM16	TGFB3	TMPO	TXNRD2					
	Add-on RASopathy genes not included in panel (17 genes)											
	A2ML1	BRAF	CBL	HRAS	KRAS	MAP2K1	MAP2K2	NF1	NRAS	PTPN11	RASA1	RIT1
	RRAS	SHOC2	SOS1	SOS2	SPRED1							
	Add-on genes associated with autosomal recessive syndromic pediatric cardiomyopathy (8 genes)											
	ACADVL	ALMS1	CPT2	DNAJC19	ELAC2	MTO1	SDHA	TMEM70				
Invitae Arrhythmogenic Cardiomyopathy Panel (up to 23 genes)	Primary panel (19 genes)											
	ACTN2	DES	DSC2	DSG2	DSP	EMD	JUP	LMNA	PKP2	PLN	PRKAG2	RBM20
	RYR2	SCN5A	TGFB3	TMEM43	TNNI3	TNNT2	TTN					
	Add-on preliminary-evidence genes (4 genes)											
	ANKRD1	CTNNA3	LDB3	PDLIM3								
Invitae Dilated Cardiomyopathy Panel (up to 70 genes)	Primary panel (41 genes)											
	ABCC9	ACTC1	ACTN2	BAG3	CAV3	CRYAB	CSRP3	DES	DMD	DOLK	DSC2	DSG2
	DSP	EMD	EYA4	FKRP	FKTN	FLNC	JUP	LAMP2	LMNA	MYBPC3	MYH7	PKP2
	PLN	RAF1	RBM20	RYR2	SCN5A	SGCD	SLC22A5	TAZ	TCAP	TMEM43	TNNC1	TNNI3
	TNNT2	TPM1	TTN	TTR	VCL							
	Add-on preliminary-evidence genes (23 genes)											
	ANKRD1	CHRM2	CTF1	FHL2	GATA4	GATA6	GATAD1	ILK	LAMA4	LDB3	LRRC10	MED12
	MYH6	MYPN	NEBL	NEXN	NKX2-5	NPPA	PDLIM3	PLEKHM2	PRDM16	TMPO	TXNRD2	
	Add-on genes associated with autosomal recessive syndromic pediatric cardiomyopathy (6 genes)											
	ACADVL	ALMS1	CPT2	DNAJC19	SDHA	TMEM70						
Invitae Hypertrophic Cardiomyopathy Panel (up to 58 genes)	Primary panel (26 genes)											
	ACTC1	ACTN2	AGL	BAG3	CACNA1C	CAV3	CSRP3	DES	FHL1	FLNC	GAA	GLA
	LAMP2	MYBPC3	MYH7	MYL2	MYL3	PLN	PRKAG2	TCAP	TNNC1	TNNI3	TNNT2	TPM1
	TTR	VCL										
	Add-on preliminary-evidence genes (12 genes)											
	ANKRD1	CALR3	GATA4	JPH2	LDB3	MYH6	MYLK2	MYOM1	MYOZ2	MYPN	NEXN	PDLIM3
	Add-on RASopathy genes (18 genes)											
	A2ML1	BRAF	CBL	HRAS	KRAS	MAP2K1	MAP2K2	NF1	NRAS	PTPN11	RAF1	RASA1
	RIT1	RRAS	SHOC2	SOS1	SOS2	SPRED1						
	Add-on genes associated with autosomal recessive syndromic pediatric cardiomyopathy (4 genes)											
	ACADVL	CPT2	ELAC2	MTO1								
Invitae Left Ventricular Noncompaction Panel (up to 19 genes)	Primary panel (15 genes)											
	ACTC1	DSP	HCN4	LAMP2	LMNA	MYBPC3	MYH7	PLN	RYR2	SCN5A	TAZ	TNNI3
	TNNT2	TPM1	VCL									
	Add-on preliminary-evidence genes (4 genes)											
	DTNA	LDB3	PLEKHM2	PRDM16								
Invitae Transthyretin Amyloidosis Test (1 gene)	Primary panel (1 gene)											
	TTR											
Invitae Hereditary Hemochromatosis Panel (5 genes)	Primary panel (5 genes)											
	HAMP	HFE	HFE2	SLC40A1	TFR2							
Invitae RASopathies Comprehensive Panel (18 genes)	Primary panel (18 genes)											
	A2ML1	BRAF	CBL	HRAS	KRAS	MAP2K1	MAP2K2	NF1	NRAS	PTPN11	RAF1	RASA1
	RIT1	RRAS	SHOC2	SOS1	SOS2	SPRED1						

ABOUT INVITAE

Invitae's mission is to bring comprehensive genetic information into mainstream medical practice to improve the quality of healthcare for everyone. Our goal is to aggregate most of the world's genetic tests into a single service with higher quality, faster turnaround time, and lower price than many single-gene tests today.

For more information about Invitae's genetic tests, please visit www.invitae.com.

