

Technical Product Report

For Research Use Only; Not for use in Diagnostic Procedures

Product Description: Seraseq® Inherited Cardiovascular DNA Mix

Material Number: 0740-0132

Batch Number: 10767962

Material Description: A genomic DNA mutation mix containing deletions, insertions, duplications, inversion, and single nucleotide variants associated with various inherited cardiovascular conditions blended with GM24385 DNA as reference wild-type background

Date of Manufacture: 9 JUN 2025

Expiration Date: 9 JUN 2029

Fill Volume: 25 µL

Nominal Concentration: 10 ng/µL

Concentration (Qubit dsDNA BR Assay): 15.5 ng/µL

dPCR Test Method: Bio-Rad QX200 Droplet Digital™ System

NGS Assay Test Method: Next Generation Sequencing testing using HealthinCode Inherited Heart Diseases Global Panel (348 genes)

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Gene	Nucleotide Change	Protein Change	% Allele Frequency (dPCR)	% Allele Frequency (NGS)
ABCC9	c.3347G>A	p.Arg1116His	60.7	54.7
ACTC1	c.301G>A	p.Glu101Lys	40.9	41.4
ACTN2	c.355G>A	p.Ala119Thr	45.0	49.6
ALPK3	c.2043_2044delinsCT	p.Gln681_Glu682delinsHisTer	44.8	47.4
BAG3	c.351_352insTGGA...*	p.Gly118fs	46.2	51.5
CACNA1C	c.1553G>A	p.Arg518His	41.8	49.0
CALM1	c.293A>G	p.Asn98Ser	44.0	50.1
CALM2	c.293A>G	p.Asn98Ser	44.8	51.9
CASQ2	c.339_354del	p.Ser113fs	48.0	43.8
CDH2	c.1344+1G>A	Splice variant	44.7	54.4
CTNNA3	c.2293TTG[1]	p.Leu766del	46.3	55.7
CRYAB	c.145del	p.Leu49fs	44.1	43.6
DES	c.1216C>T	p.Arg406Trp	44.0	50.1
DMD	c.6613_6614del	p.Arg2205fs	52.8	51.9
DSC2	c.2186del	p.Pro729fs	40.2	48.2
DSG2	c.1038_1040del	p.Lys346del	40.7	48.6
DSP	c.2131_2132del	N/A	43.9	46.3
	c.5671_*835+957del4738insAGAACAGTCTT	N/A	40.9	ND
EMD	c.153dup	p.Ser52fs	51.7	42.4
FKTN	c.454dup	p.Ser152fs	42.2	53.4
FLNC	c.4275del	p.Arg1426fs	44.4	49.5
GAA	c.525del	p.Glu176fs	41.0	53.5
GATA6	c.701del	p.Pro234fs	58.5	51.6
GLA	c.644A>G	p.Asn215Ser	50.2	45.0
HCN4	c.1454C>T	p.Ala485Val	47.7	55.0
JPH2	c.482C>A	p.Thr161Lys	42.9	49.2
JUP	c.2038_2039del	p.Trp680fs	40.3	43.8
LAMP2	c.877C>T	p.Arg293Ter	44.7	51.9
LDB3	c.1723T>A	p.Phe575Ile	41.4	45.9
LMNA	c.568C>T	p.Arg190Trp	41.2	51.9
MYBPC3	c.2373dup	p.Trp792fs	43.6	49.4
	c.1224-52G>A	N/A	43.7	44.6
MYH6	c.1410+1G>A	Splice variant	42.5	49.0
MYH7	c.2513C>T	p.Pro838Leu	40.2	42.4
	c.2167C>T	p.Arg723Cys	42.2	50.6
	c.2711G>A	p.Arg904His	40.2	47.5
MYL2	c.173G>A	p.Arg58Gln	41.0	47.9

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MYL3	c.445A>G	p.Met149Val	40.3	42.5
MYPN	c.3127del	p.Ser1043fs	39.4	45.7
NEXN	c.1536dup	p.Met513fs	44.5	49.3
NKX2-5	c.711C>A	p.Tyr237Ter	41.3	49.0
PKP2	c.968_971delinsGCT	p.Gln323fs	42.3	43.9
	c.1217_1379-790delinsAAAG... [‡]	N/A	43.0	42.7
PLN	c.1020+6570_1020+6572del	p.Arg14del	48.1	50.1
PPA2	c.514G>A	p.Glu172Lys	43.7	47.3
PRDM16	c.1573dup	p.Arg525fs	41.4	48.2
PRKAG2	c.905G>A	p.Arg302Gln	47.2	53.3
PTPN11	c.1403C>T	p.Thr468Met	42.9	51.0
RAF1	c.1837C>G	p.Leu613Val	42.7	50.8
RBM20	c.1900C>T	p.Arg634Trp	42.3	40.8
RYR2	c.1069G>A	p.Gly357Ser	43.9	49.8
SCN5A	c.2550_2551dup	p.Phe851fs	42.1	50.7
SHOC2	c.4A>G	p.Ser2Gly	40.3	48.0
TMEM43	c.1073C>T	p.Ser358Leu	45.7	53.3
TNNC1	c.23C>T	p.Ala8Val	58.5	46.6
TNNI3	c.485G>A	p.Arg162Gln	43.8	49.4
TNNI3K	c.2302G>A	p.Glu768Lys	43.2	56.3
TNNT2	c.508GAG[3]	p.Glu173del	46.6	50.9
TPM1	c.688G>A	p.Asp230Asn	41.1	43.0
TTR	c.148G>A	p.Val50Met	43.6	48.6
TTN	c.80365_80432del	p.Leu26789fs	60.9	18.2

ND = not detected

[‡]See Technical Spreadsheet for full insertion sequence.

Approval:



Prepared By

11 JUN 2025

Date