

## Targeted Genes and Methodology Details for Dilated Cardiomyopathy and Left Ventricular Noncompaction Cardiomyopathy Gene Panel

The following applies to DCLNG / Dilated Cardiomyopathy and Left Ventricular Noncompaction Cardiomyopathy Gene Panel. Testing is performed to evaluate for the presence of variants in coding regions and extending to +/- 10 base pairs of adjacent intronic sequence on either side of the coding exons of the genes analyzed. In addition, the analysis will cover select non-coding variants. Next-generation sequencing and/or a polymerase chain reaction-based quantitative method is performed to test for the presence of copy numbers variants (CNV) in the genes analyzed. Confirmation of select reportable variants may be performed by alternate methodologies based on internal laboratory criteria.

This list is current from November 2022 to the present. This document is intended to highlight additional evaluations for variants of high clinical interest as well as technical limitations. However, this document does not comprehensively reflect all genomic regions covered by this test. For questions regarding transcripts, genes or regions covered, contact the laboratory at 800-533-1710.

Genomic Build: GRCh37 (hg19) unless otherwise specified

Gene	Reference Transcript	Additional Evaluations	Technical Limitations
<i>ABCC9</i>	NM_005691.3	-	-
<i>ACAD9</i>	NM_014049.5	-	-
<i>ACADVL</i>	NM_000018.4	-	-
<i>ACTC1</i>	NM_005159.5	-	-
<i>ACTN2</i>	NM_001103.3	-	-
<i>ALMS1</i>	ENST00000264448.6	-	-
<i>ALPK3</i>	NM_020778.4	-	-
<i>BAG3</i>	NM_004281.3	-	-
<i>CDH2</i>	NM_001792.5	-	-
<i>CPT2</i>	NM_000098.3	-	-
<i>CRYAB</i>	NM_001885.3	-	-
<i>CSRP3</i>	NM_003476.5	-	-
<i>DES</i>	NM_001927.4	-	-
<i>DMD</i>	NM_004006.2	chrX:g.33192452C>T (c.31+36947G>A); chrX:g.32827744A>T (c.531-16T>A); chrX:g.32398808T>C (c.4675-11A>G); chrX:g.31279781T>C (c.9225-648A>G); chrX:g.31279780T>C (c.9225-647A>G); chrX:g.31279420G>T (c.9225-287C>A); chrX:g.31279418T>C (c.9225-285A>G)	-
<i>DNAJC19</i>	NM_145261.4	-	-
<i>DOLK</i>	NM_014908.4	-	-
<i>DSC2</i>	NM_024422.6	-	-
<i>DSG2</i>	NM_001943.5	-	-
<i>DSP</i>	NM_004415.4	-	-
<i>EMD</i>	NM_000117.3	-	-
<i>FKRP</i>	NM_024301.5	-	-
<i>FKTN</i>	NM_001079802.1	chr9:g.108368857G>T (c.648-1243G>T); ~3 kb retrotransposon insertion (c.*4392_*4393)	-

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Gene	Reference Transcript	Additional Evaluations	Technical Limitations
<i>FLNC</i>	NM_001458.4	-	-
<i>GAA</i>	NM_000152.5	chr17:g.78078341T>G (c.-32-13T>G); chr17:g.78082266T>G (c.1076-22T>G); chr17:g.78082485T>A (c.1195-11T>A); chr17:g.78092432T>G (c.2647-20T>G)	-
<i>GLA</i>	NM_000169.2	chrX:g.100654735C>T (c.640-801G>A); chrX:g.100653945A>T (c.640-11T>A)	-
<i>HCN4</i>	NM_005477.3	-	-
<i>JPH2</i>	NM_020433.4	-	-
<i>JUP</i>	NM_002230.4	-	-
<i>LAMP2</i>	NM_013995.2	-	-
<i>LMNA</i>	NM_170707.4	chr1:g.156105681C>G (c.937-11C>G)	-
<i>MYBPC3</i>	NM_000256.3	chr11:g.47368616C>T (c.906-36G>A); chr11:g.47364832C>T (c.1224-19G>A); chr11:g.47364834T>C (c.1224-21A>G); chr11:g.47364865C>T (c.1224-52G>A); chr11:g.47364709C>T (c.1227-13G>A); chr11:g.47362606T>C (c.1898-23A>G); chr11:g.47361954G>A (c.1927+600C>T); chr11:g.47354261_47354267del (c.3491-12_3491-6delTGTACACC); chr11:g.47353821G>C (c.3628-12C>G)	CNV may not be detected in exon 10
<i>MYH7</i>	NM_000257.4	-	-
<i>MYLK3</i>	NM_182493.3	-	-
<i>MYPN</i>	NM_032578.3	-	-
<i>NEXN</i>	NM_144573.3	-	-
<i>NKX2-5</i>	NM_004387.4	-	-
<i>PCCA</i>	NM_000282.4	-	CNV may not be detected in exon 10
<i>PCCB</i>	NM_000532.5	-	-
<i>PKP2</i>	NM_004572.3	-	-
<i>PLN</i>	NM_002667.5	-	-
<i>PPA2</i>	NM_176869.3	-	CNV may not be detected in exon 11
<i>PPCS</i>	NM_024664.4	-	-
<i>PRDM16</i>	NM_022114.4	-	CNV may not be detected in exon 1
<i>RAF1</i>	NM_002880.3	-	-
<i>RBM20</i>	NM_001134363.3	-	-
<i>RYR2</i>	NM_001035.3	-	CNV may not be detected in exons 71, 96, and 104

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Gene	Reference Transcript	Additional Evaluations	Technical Limitations
<i>SCN5A</i>	NM_198056.2	-	-
<i>SGCD</i>	NM_000337.5	-	-
<i>SHOC2</i>	NM_007373.3	-	-
<i>SLC22A5</i>	NM_003060.4	chr5:g.131705516G>A (c.-149G>A); chr5:g.131714054T>A (c.394-16T>A); chr5:g.131722665G>A (c.825-52G>A)	-
<i>TAZ</i> ( <i>TAFAZZIN</i> )	NM_000116.5	-	-
<i>TBX20</i>	NM_001077653.2	-	CNV may not be detected in exons 5–8
<i>TCAP</i>	NM_003673.4	-	-
<i>TMEM43</i>	NM_024334.2	-	-
<i>TMEM70</i>	NM_017866.6	-	-
<i>TNNC1</i>	NM_003280.3	-	-
<i>TNNI3</i>	NM_000363.5	-	-
<i>TNNI3K</i>	NM_015978.3	-	CNV may not be detected in exon 1
<i>TNNT2</i>	NM_001001430.3	-	-
<i>TPM1</i>	NM_001018005.2	-	-
<i>TTN</i>	NM_001256850.1	-	Sequence and CNV analyses for exons 154–156 will not be performed
<i>TTR</i>	NM_000371.3	-	-
<i>VCL</i>	NM_014000.2	-	-

Effective Date	Version	Synopsis of Test Change
6/4/2025	V2	<ul style="list-style-type: none"> <li>Added Additional Evaluations for <i>DMD</i>, <i>GAA</i>, <i>GLA</i>, <i>LMNA</i>, and <i>MYBPC3</i></li> <li>Added Technical Limitations for <i>MYBPC3</i>, <i>PPA2</i>, <i>TBX20</i>, and <i>TTN</i></li> </ul>