NGS Disease Research Panels

ClearSeq Constitutional Disease

Cardiomyopathy and Arrhythmia research panels

Benefits

Confidence in Genomic Content

- Comprehensive content tailored to cardiomyopathy and arrhythmia
- Developed in conjunction with top clinical research leaders

Ease of Use From Sample to Analysis

- Simple, automatable protocol with no library preparation
- SureCall software for intuitive variant analysis and report formats

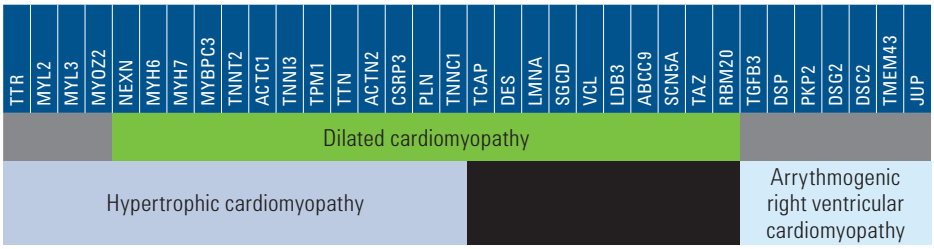
Results You Can Trust

- Multiple amplicon coverage of targets providing better coverage, less PCR artifacts and more accurate mutation calls
- Premium performance including high sensitivity, specificity, and mutation detection

Next generation sequencing has revolutionized the field of genetics by enabling laboratories to uncover sequence level variations quickly and cost effectively. In order to harness the power of next generation sequencing for genetic anomalies known to be associated with specific disease states, it is critical to target these specific genomic regions.

ClearSeq Cardiomyopathy

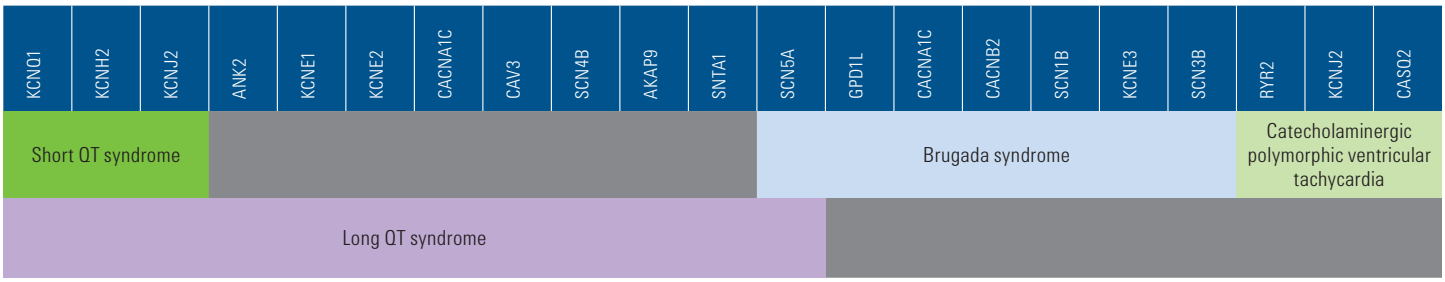
The ClearSeq Cardiomyopathy (catalog) is a next generation sequencing target enrichment panel designed specifically for inherited forms of cardiomyopathy. Following a careful review of cardiomyopathy publications as well as information available from GeneReviews, an NIH online resource, 34 genes known to be associated with hypertrophic cardiomyopathy, dilated cardiomyopathy, and arrythmogenic right ventricular cardiomyopathy have been included. As shown in the table below, there is substantial overlap in some genes associated with different cardiomyopathy types, and the ability to sequence all of the genes simultaneously enables laboratories to create a comprehensive cardiomyopathy profile for clinical research samples in one efficient, cost effective application.



ClearSeq Constitutional Disease

ClearSeq Arrhythmia

Targeting genomic regions known to be associated with four inherited arrhythmia related heart disorders, ClearSeq Arrhythmia (made-toorder) is a next generation sequencing target enrichment panel is a result of a thorough review of publications for arrhythmia and drew on information in GeneReviews, an NIH online resource, in order to incorporate 21 genes known to correlate with long QT syndrome, short QT syndrome, Brugada syndrome, and catecholaminergic polymorphic ventricular tachycardia. The genes associated with different types of arrhythmia are overlapping in some cases, as shown in the table below, and using ClearSeq Arrhythmia, a comprehensive arrhythmia profile can be assembled for clinical research samples.



From Sample to Result in Less than 2 Days

1

Order ClearSeq panel

Cardiomyopathy	or	Arrhythmia
G9908A – Illumina MiSeq, 16 rxn.		SureDesign ID 00100-1358263563
G9908B – Illumina MiSeq, 96 rxn.		Made to order
G9909A – Ion PGM, 16 rxn.		Order using custom part number
B9909B – Ion PGM, 96 rxn.		

ClearSeq FOCUS. PRECISION. RELEVANCE.

Visit SureDesign
www.agilent.com/genomics/suredesign

2

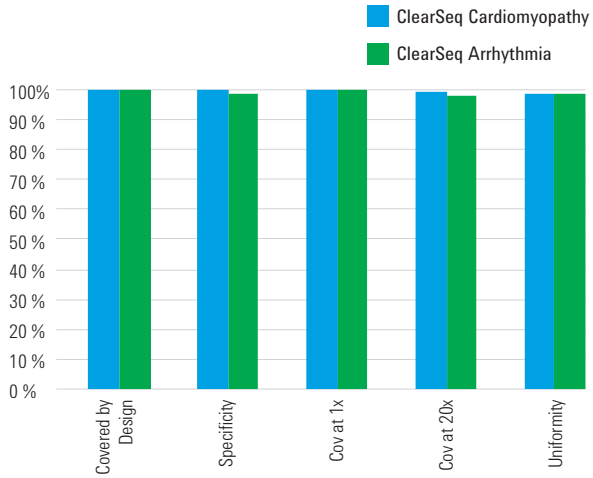
Prepare Samples and Sequence

3

Analyze data, print/export results

SureCall

Premium Target Enrichment Performance



Results from Illumina MiSeq runs; Uniformity calculated as bases covered at 10% of mean coverage

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Printed in USA, April 3, 2015
5991-2525EN
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