



NGS Panels

CentoCardio

Helping You Beat the Statistics



NGS Panel for Cardiology

CENTOGENE's Next Generation Sequencing (NGS) gene panel for inherited cardiac diseases can help physicians identify the genetic cause of cardiac diseases, including cardiomyopathy, arrhythmia, and congenital cardiac disorders. Timely detection and diagnosis of heart disorders can lead to enhanced treatment options, help prevent sudden cardiac death, and improve prognosis. Testing can also identify asymptomatic and at-risk family members – facilitating surveillance or interventions to prevent illness or sudden death.

Our panel follows a phenotype-directed approach that includes all clinically relevant genes and genes necessary for the differential diagnosis of syndromes with overlapping phenotype(s) – enabling the diagnosis of a disease that could have otherwise been missed. Our high-quality sequencing is supported by complementary assays to provide advanced detection and enable an accurate diagnosis. This approach maximizes the clinical utility, minimizes the risk of incorrect panel choice, increases cost-effectiveness, and ultimately simplifies the diagnostic process.

The CENTOGENE Advantage



Coverage of **all relevant disease-causing genes** and non-coding and coding pathogenic variants



Powered by CENTOGENE's Biodatabank, the **world's largest real-world data repository** for rare and neurodegenerative diseases



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GATTCCA
ACGTTCCG
GGACACT
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The most **up-to-date panel gene content** with the latest medical and in-house findings



High-quality analysis for precise clinical interpretation using artificial intelligence-powered tools and advanced bioinformatics

Key Features and Performance

Coverage

- $\geq 99.0\%$ targeted regions covered at $\geq 20\times$
- The target region for each gene comprises all exons; $\pm 10\text{bp}$ flanking regions; known pathogenic and likely pathogenic variants described in HGMD[®] and CENTOGENE's Biodatabank, including relevant deep intronic and regulatory variants, which were known at the time of the assay design.

Genes

For a complete overview of included genes, please visit:

centoportal.com/order/new/products/analysis-method?queryType=TEST&query=CentoCardio

Specificity

$\geq 99.9\%$ guaranteed for all reported variants. Variants with low quality and/or unclear zygosity are confirmed by orthogonal methods (Sanger, MLPA, qPCR)

CNV Sensitivity

The CNV detection software has a sensitivity of more than 95%.

TAT

25 business days

Centocardio Panel Overview

Number of Genes

327

Analysis

- Next-Generation-Sequencing (NGS)
 - CNV analysis included
 - Mitochondrial DNA analysis included
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Conditions

Arrhythmogenic right ventricular cardiomyopathy, Brugada syndrome, catecholaminergic polymorphic ventricular tachycardia, congenital heart defects, dilated cardiomyopathy, hereditary arrhythmia syndromes, heterotaxy syndrome, hypertrophic cardiomyopathy, hereditary hypomagnesemia, long QT syndrome, and short QT syndrome

Material

1 CentoCard® or 1 buccal swab or 1 µg DNA

For more details of accepted materials please visit: [centogene.com/diagnostics/how-to-order](https://www.centogene.com/diagnostics/how-to-order)

Going The Extra Mile

All of our NGS panels include sequencing, deletion/duplication (CNV) analysis, and complementary assays to offer the most complete analysis for maximum diagnostic yield.

Deletion/Duplication

High resolution NGS-based CNV analysis to detect larger deletions/duplications is included in all our panels at no extra cost. Deletion/duplications constitute 5–10% of disease-causing variants. By including CNV analysis in our panels, the potential of providing the most accurate diagnosis increases

Mitochondrial Genome

High quality mitochondrial testing is now included for panels where symptoms may be caused by mitochondrial DNA mutations

Complementary Assays

To maximize clinical utility, our panels are complemented with auxiliary assays, such as repeat expansions to cover variant types or genes that cannot be examined by next generation sequencing

Improved Interpretation

CENTOGENE's Biodatabank, the world's largest real-world data repository for rare and neurodegenerative diseases enables access to more than 31 million unique variants for best medical interpretation

Variant Reclassification Program

Our variant reclassification program includes all our panels. Physicians are notified free of charge if new genetic evidence which impacts the nature of a previous diagnosis is identified

For More Information
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For Ordering
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