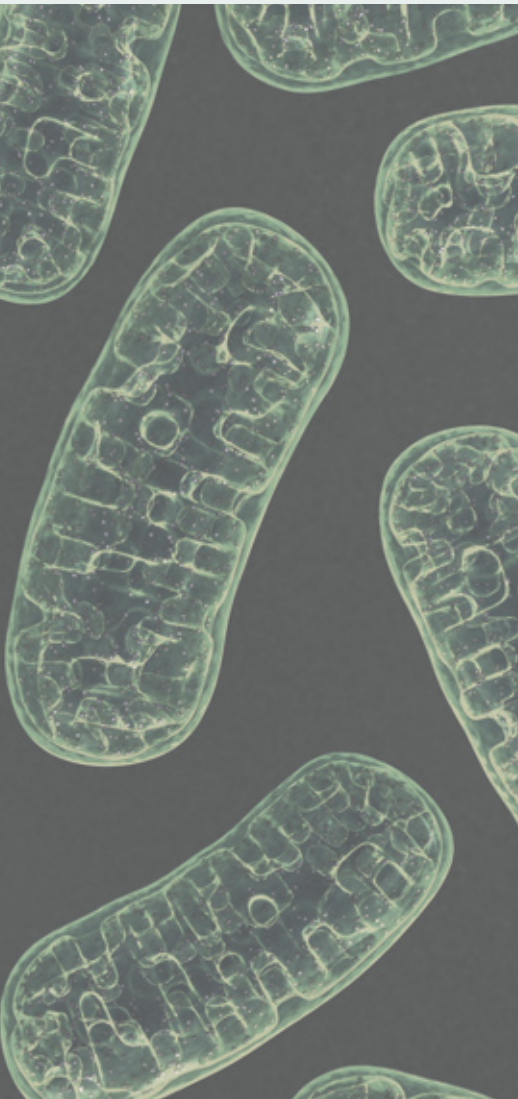


Celemics Mitochondrial DNA Panel (mtDNA Panel)

Key Features

Uniquely optimized and specifically designed for stand-alone mtDNA panel use.

Deliverance of unparalleled on-target ratio in stand-alone panel use, regardless of small target regions.



Hybridization-based mtDNA Panel

Accurate analysis of the human mitochondrial genome has always been challenging due to its clinical variability and genetic heterogeneity. The instability and variation of mtDNA have been associated with many metabolic & neurologic disorders and cancers.

The **Celemics mtDNA Panel** simplifies the analysis of the human mitochondrial genome, providing Hybridization-based mtDNA Panels for splice-in and stand-alone usage.

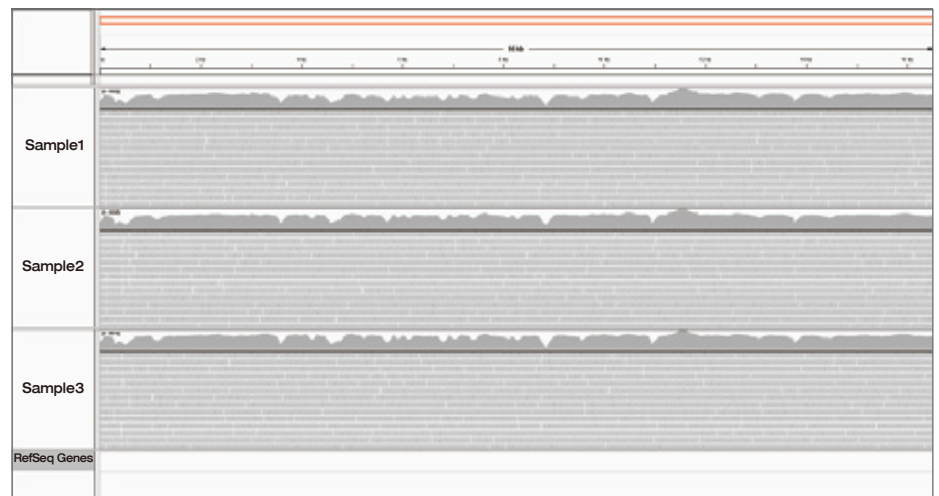


Figure 1. IGV Plots of Celemics Hybridization-based mtDNA Panel's coverage. [Stand-alone use]

NGS Sequencing Amount	10 Mb
On-target Base Ratio	97.93%
Mean Depth	493x
10x Coverage	99.98%
50x Coverage	99.91%
100x Coverage	99.87%

Table 1. Performance stat. summary of Celemics Hybridization-based mtDNA panel. [Stand-alone use]

Celemics has specifically designed the capture probes and adjusted the concentration of the panel for each respective use with our own proprietary rebalancing technologies to provide complete, consistent coverage of the whole mtDNA genome while taking into consideration small target regions.

Therefore, even when used as a stand-alone panel, users can still expect the same level of target capture efficiency no matter how small the target size.

Benefits

- Guarantees maximum capture efficiency in custom panels without affecting target specificity.
- Industry-leading coverage across the entire human mtDNA genome.
- Concurrent expansion of nuclear DNA variant analysis capabilities.
- Easily combined with CES/CES Expanded Panel for further mtDNA-derived rare disease analysis.

Specifications

Covered Region	Mitochondrial whole genome (16,569 bp)
Target Enrichment	In-solution Hybridization
Minimum Input DNA	> 50 ng (high quality samples)
Multiplexing	Up to 384 indexing available
Compatible Platforms	All Illumina, Ion Torrent, DNBseq platforms

Ordering Information *Please contact Celemics for more product options

Description (Illumina platform)	# of Samples	Catalog #
All-in-one Hybridization-based mtDNA Panel <small>Pre-capture pooling of 8 sample libraries</small>	24 samples	8P-AIH-MTD24
	64 samples	8P-AIH-MTD64
	128 samples	8P-AIH-MTD128
	384 samples	8P-AIH-MTD384
	768 samples	8P-AIH-MTD768

Package Name	Composition		
	Library Preparation Reagents*	Target Enrichment Reagents†	Bead & Polymerase‡
All-In-One Kit	Provided	Provided	Provided
Standard Kit	Provided	Provided	N/A
Target Enrichment Kit	N/A	Provided	N/A

* Library Preparation Reagents include 2 packages of solutions (LP #1, LP #2) / Option: Standard or EP Kit

† Target Enrichment Reagents include 3 Target Capture solutions (TC #1, TC #2, TC #3) / Option : Hybridization Enhancer

‡ Bead & Polymerase includes CeleMag™ Clean-up Bead, CeleMag™ Streptavidin Bead, and CLM Polymerase

