

A simple and robust molecular research assay for the identification of all SNVs and CNVs in the *DMD* gene associated with Muscular Dystrophies



Research application

Detection of *DMD* variants associated with

- Duchenne Muscular Dystrophy (DMD)
- Becker Muscular Dystrophy (BMD)
- X-linked dilated cardiomyopathy (XLCM)

Assay characteristics

Genes analyzed	<i>DMD</i> transcript NM_004006 (Dp427m isoform)
Genomic region analyzed	23 kb all 79 exons +/- 30 kb flanking region CNVs and SNVs
Number of amplicons	118 including 28 control amplicons
Amplicon length	280-400 bp
Number of plexes	4
DNA amount required	20 ng per multiplex reaction

Advised maximum number of samples per run:

Workflow

Sequencing System	Illumina MiSeq®		
	Reagent kit		
Flow cell	Nano v2 2 x 251 cycles	v2 2 x 251 cycles	v3 2 x 276 cycles
For SNV only			
Minimal coverage per allele: 20	35	530*	972 *
For SNV and CNV			
Minimal coverage per amplicon: 200	7 ⁵	107	196*

* only 192 MID combinations available

⁵ for statistically reliable CNV calling, it is advised to analyze minimum 10 samples together. Identical CNVs can not be present in more than 15 % of the samples of a sequencing run.

For the number of samples per run on Life Technologies Ion Torrent Systems, please refer to the Sequence Calculator on the Agilent website.

Workflow



Order info

Cat. No.	Product Name	Reactions
MR-0120.008	DMD MASTR	8

MID (Molecular Identifiers) kits are necessary to complete the workflow.

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 Printed in Belgium, December 31, 2017
 5991-8382ENE
 PR7000-1407