Cystic fibrosis

Devyser CFTR for NGS

Discover the advantages

- One tube per patient sample, sample splitting not necessary
- Reduces hands-on time from days to minutes
- Eliminates complex and labor-intensive workflows
- From sample to sequencing in one working day
- Library covers all coding regions, promoter and exon-intron boundaries of the CFTR gene
- Direct detection of the most frequent CNVs/deletions
- Determination of intron 9 (IVS8) poly-T and TG repeat number
- Overlap design ensures full coverage of INDELs in coding sequences
- PCR-generated library ensures uniform coverage and on-target sequences
- Standardised, easy to use and streamlined data analysis options available
- Compatible with current NGS instruments

Cystic fibrosis molecular diagnostics

CFTR mutation testing can be used as an aid in newborn screening, CF diagnosis and reproductive decisions, enabling clinicians to determine whether an abnormal diagnostic result is due to a mutation within the CFTR gene. Other disorders related to CFTR dysfunction include male infertility caused by CBAVD and acute recurrent or chronic pancreatitis. More than 2,000 mutations and variants in the CFTR gene have been described. The vast majority of these mutations have a population frequency below 0.1 % with high heterogeneity of mutation distribution between different ethnic groups.

A complete CFTR library kit for NGS detection

The Devyser CFTR kit for NGS detection has been designed to cover all CFTR mutations present in the coding regions, intron/exon boundaries and promoter regions as well as relevant deep intronic sequences and large structural deletions. The assay also detects polythymidine variants (5T/7T/9T) within intron 9 (IVS8) of the CFTR gene. The TG-repeat number upstream of the poly-T region can also be determined.

The Devyser CFTR library kit for NGS detection is suitable for CFTR mutation detection in all populations, regardless of ethnic background. Devyser's multiplex PCR primer chemistry allows completely overlapping primer design within a single PCR reaction, minimizing the risk of sample mix-up and cross-contamination. The overlapping primer design also ensures superior INDEL coverage throughout the complete coding region of the CFTR gene. All components necessary for generating ready-to-sequence NGS libraries are included and validated in the workflow.

Devyser. Results for life.

Devyser is specialized in the development, manufacture and sales of diagnostic kits for complex DNA testing within Oncology, Reproductive Health and Hereditary Diseases. The products are used to guide targeted cancer therapies, to enable rapid prenatal diagnostics as well as in a wide array of genetic tests. Devyser's product development focuses on simplifying and streamlining complex testing processes to improve throughput, reduce hands-on time and produce accurate and trusted results.

Technical specifications

Intended use:
The Devyser CFTR kit is an in vitro diagnostic product for detection of mutations in the CFTR gene.

Assay procedure:
Targeted sample library preparation. Standardized sample barcoding and sample pooling for NGS.

Validated sample material:
- Whole blood
- Dried blood spots

Run time:
Total time: 4-5 hours
Hands-on time: 45 min

Article number:
8-A101-8 (8 tests)
8-A101-24 (24 tests)

Procedures included in assay:
- Clinical sample DNA standardization
- Library preparation
- Sample indexing/molecular barcoding
- Sample clean-up and pooling

Contact

Instrumentvägen 19
SE-12653 Hägersten
Sweden
Tel: +46-(0)8-562 158 50
Fax: +46-(0)8-32 64 88
Web: www.devyser.com
Email: info@devyser.com

DEVYSER
RESULTS FOR LIFE