

BENKit panel

For the screening of Metastatic Colorectal Cancer and Non-small-cell Lung Carcinoma



BENKit panel

BENKit Panel is a novel NGS Medical Device for the molecular profiling of the Hot Spots relevant for the therapy selection in Metastatic Colorectal Cancer and non-small-cell lung carcinoma. BENKit panel is a kit for the analysis of the KRAS, NRAS, BRAF, EGFR and PIK3CA genes through a molecular protocol based on NGS technologies. The kit is validated for somatic analysis (SNPs, indels) of DNA extracted from cancer tissues (fresh, frozen or FFPE) or other body tissues.

TECHNOLOGY

BENKit panel kit contains all reagents required for the preparation of a specific bidirectional library of amplicons designed for the NGS analysis using Nanopore sequencers.

WORKFLOW

The BENKit panel kit is part of a DNA-to-variant solution that offers streamlined content, easy-to-perform library preparation, push-button sequencing systems, and simplified data analysis.

Library preparation follows a straightforward, PCR-based protocol that can be completed in as little as 5 hours, with < 1.5 hours hands-on time. Resulting libraries can be normalized, pooled, and then loaded on to a flow cell for sequencing.

Prepared libraries are sequenced on any compatible Nanopore sequencers.

VALIDATION

To demonstrate assay capabilities, clinical samples were run in a clinical setting. DNA quality and quantity of the libraries prepared were verified using Qubit and Agilent Bioanalyzer.

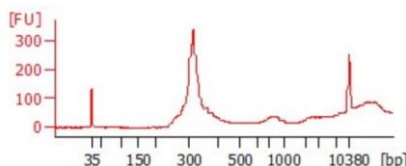


Figure 1. BENKit panel profiles examples

SOFTWARE ANALYSIS

4eVAR is our proprietary analysis software. The analysis is designed based on the characteristics and technologies of the kit, in order to increase accuracy of results, and to have the complete control on the entire process.

Table 1. List of target regions in BENKit panel

Target genes	Exons
KRAS	2, 3, 4
NRAS	2, 3, 4
BRAF	11, 15
EGFR	18, 19, 20, 21
PIK3CA	10, 21

SAMPLE PER RUN

Flowcell	Samples per flowcell*		Instrument	Flowcells per instrument**
	100x	1000x		
FLO-MIN114	96	10	MinION	1
			GridION	Up to 5
FLO-PRO114M	160	16	PromethION 2\2 Solo	Up to 2
			PromethION 24	Up to 24
			PromethION 48	Up to 48

*Multiple flow cells can be used during the same run session, with different libraries, or same library increasing depth

ORDERING INFORMATION

Product	REF
BENKit panel	H1020-16 (16 test)
BENKit panel	H1020-48 (48 test)
BARCODE	
BARCODE ONT Set 16	R8001-16 (96 test)
BARCODE ONT Set 96	R8002-96 (96 test)
ADAPTER	
NANO ADAPTER	M1050-6