

PANCANCER pro



For the screening of solid tumors.

PANCANCER pro

PANCANCER pro is a novel NGS medical device for the molecular profiling of the variants involved in onset and progression of solid tumors.

PANCANCER pro is a kit for the analysis of 95 genes related to several solid tumors, through a molecular protocol based on NGS technologies. The kit is validated for germline and somatic analysis (SNPs, indels, CNVs) of DNA extracted from blood or body tissues samples, fresh frozen or FFPE.

PANCANCER pro kit contains all reagents required for the preparation of the capture of specifically designed probes and for the NGS analysis using Illumina.

TECHNOLOGY

The Pancancer pro 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.

WORKFLOW

Library preparation follows a straightforward, capture-based protocol that can be completed in as little as 24 hours, with <3 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 Illumina sequencers.

Table 1. List of target genes in PANCANCER pro.

ABL1	CTNNB1	KMT2A	TP53	NOTCH1	GNAQ
ALK	DNMT3A	MAP2K1	VHL	NOTCH2	GNAS
APC	FANCA	MLH1	BRCA1	NOTCH3	HNF1A
ARID1A	FANCL	MSH6	BRCA2	NOTCH4	KDR
ATM	FBXW7	NRAS	HER2	AKT1	MLP
ATR	EML4	PALB2	MET	PIK3CA	NPM1
ATRX	FGFR1	PIK3CA	NTRK1	TSHR	PDGFRA
BARD1	FGFR2	PTEN	NTRK2	TERT	PTPN11
BRAF	FGFR3	RAD51B	NTRK3	CDH1	STK11
BRIP1	FLT3	RAD51C	HRAS	CSF1R	SMAD4
CBL	HRAS	RAD51D	KRAS	DDR2	SMARCB1
CDK12	IDH1	RAD54L	NRAS	ERBB2	SMO
CDKN2A	IDH2	RB1	P13K	ERBB4	SRC
CHEK2	JAK2	RET	EGFR	EZH2	TSC1
CHEK1	JAK3	ROS1	PDL1 (CD274)	FOXL2	VHL
CSF3R	KIT	TET2	KRAS	GNA11	POLE

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.

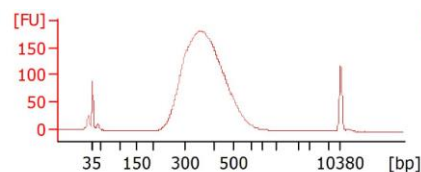


Figure 1: Bioanalyzer profile of PANCANCER pro final library

SAMPLE PER RUN

Instrument	Samples per run*
MiSeq Kit v2 (300-cycles/500-cycles)	16
MiSeq Kit v3 (600-cycles)	32
MiniSeq Mid Output Kit (300-cycles)	8
MiniSeq High Output Kit (300-cycles)	32
NextSeq 550 Mid-Output Kit	112
NextSeq 550 High-Output Kit	352

*The estimated maximum number of samples per cartridge assumes a reading depth of 300x for the germline. The optimal number of samples can be empirically estimated on the local setup.

The volume present in the kit is calculated to allow the subdivision into multiples of 8 analysis sessions. Dividing the kit in different ways decrease the total number of tests that can be performed.

INFORMATION FOR YOUR ORDER

Product**	REF
PANCANCER pro	C3200-16X (16 test)
PANCANCER pro	C3200-96X (96 test)
UDI***	
UDI Primers Set A	7001 (96 test)
UDI Primers Set B	7002 (96 test)
UDI Primers Set C	7003 (96 test)
UDI Primers Set D	7004 (96 test)
UDI Primers Set 16	7005 (16 test)

**the kit is also available in its version only for research use (RUO).

***UDI are always included in CEIVD kit (7003 for 96 preps kit).