ClinEx pro

CE IVD

Extended Clinical Exome NGS kit

ClinEx pro

ClinEx pro is allowed for the identification of molecular causes in subjects suffering from conditions not attributable to known pathologies, in subjects affected by genetically heterogeneous diseases and complex syndromic pictures.

The kit covers more than **10.000 genes described in OMIM** as related to known pathologies, **plus ~130 hotspots, SNPs, deep intronic regions** with a correlation to known hereditary diseases.
The kit also allows to include the **mitochondrial genes** as identified in MitoMap.

ClinEx pro total target size is 19.5 Mb.

The kit is validated for germline analysis (SNPs, indels, CNVs) of DNA extracted from blood or body tissues samples.
ClinEx 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 ClinEx 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 36 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.

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.

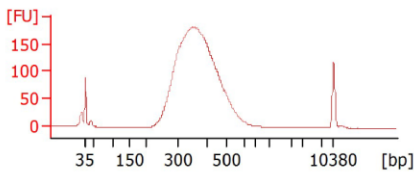

Figure 1: ClinEX pro final library profile example

SAMPLE PER RUN

Instrument	Samples per run (100x)*
NextSeq 550 Mid-Output Kit	16
NextSeq 550 High-Output Kit	48
NovaSeq 6000 SP	96
NovaSeq 6000 S1	192
NovaSeq 6000 S2	384
NovaSeq 6000 S4	768

**the suggested number of samples per cartridge / chip has been estimated using Illumina sequencing coverage calculator and assuming 5% of duplicates, 85% of on target and a sequencing length of 300bp. The optimal number of samples must be empirically calculated on the local setup, expected output for one sample at 100x 2Gb.*
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.

ORDERING INFORMATION

Product**	REF
ClinEX pro	C3030-16X (16 test)
ClinEX pro	C3030-96X(96 test)
ClinEX pro automation	C3030A-16X (16 test)
ClinEX pro automation	C3030A-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.*

CONTACTS

For more detailed information about validated automation instrument, please contact us at the address info@4bases.it

For the full gene list and the .bed file please contact us at support@4bases.it