

QIAseq Targeted cfDNA Ultra Panels

Human Lung Cancer

Cat. nos. 334051 YHS-005Z-12 and 334055 YHS-005Z-96

For ultrasensitive targeted next-generation sequencing (NGS) of cfDNA

The QIAseq Targeted cfDNA Ultra Human Lung Cancer Panel permits the targeted next generation sequencing analysis of actionable and interpretable somatic variants in 20 oncogenes and tumor suppressor genes relevant for lung tumor identification, covering 26,448 bases with 948 primers. Represented lung cancer subtypes include adenocarcinomas, carcinomas, non-small cell lung cancers (NSCLC), small cell lung cancers (SCLC), squamous cell carcinomas (SCC), and other lung cancers. Targeted actionable and interpretable genes and variants were collected from 1) clinical practice guidelines recommended by multiple organizations, including the American College of Medical Genetics (ACMG), the American Society Of Hematology (ASH), the Association for Molecular Pathology (AMP), the American Society of Clinical Oncology (ASCO), the College of American Pathologists (CAP), the European Society for Medical Oncology (ESMO), and the National Comprehensive Cancer Network (NCCN); 2) the NIH NCBI ClinVar and Online Mendelian Inheritance in Man (OMIM) resources that compile variants with known associations to cancers cited by peer-reviewed publications, 3) clinical trial documents from resources such as Cancer.gov, ClinicalTrials.gov, and the UMIN Clinical Trials Registry; 4) requests and suggestions from QIAGEN KOLs and SMEs; and 5) other peer-reviewed publications. As a result, this primer pool gives researchers a comprehensive insight into lung cancer genomics with the detection of a focused panel of relevant SNP/indels using digital DNA sequencing.

For further details, consult the *QIAseq Targeted DNA cfDNA Ultra Panels Handbook*.

Shipping and storage

The QIAseq Targeted cfDNA Ultra Kits (except QIAseq Beads and QIAseq Bead Binding Buffer) are shipped on dry ice and should be stored at -30°C to -15°C in a constant- temperature freezer upon arrival. The QIAseq Beads and QIAseq Bead Binding Buffer are shipped on cold packs and should be stored at $2-8^{\circ}\text{C}$ upon arrival. The QIAseq Targeted cfDNA Ultra Index Kits are shipped on dry ice and should be stored at -30°C to -15°C upon arrival. When stored correctly, the QIAseq Targeted cfDNA Ultra Kits are good until the expiration date printed on the kit label.

Note: Open the package and store the products appropriately immediately upon receipt.



Panel Contents

QIAseq Targeted cfDNA Ultra Catalog Number	334051	334055
No. of samples	12	96
One pool of region-specific primers	60 µL	480 µL
ERA Buffer, 10x	60 µL	480 µL
ERA Enzyme	60 µL	480 µL
UPH Ligation Buffer, 2.5x	350 µL	2x1250 µL
DNA Ligase	75 µL	600 µL
HiFi Ultra Buffer, 5x	144 µL	2x768 µL
HiFi Ultra Polymerase	40 µL	315 µL
Nuclease-free Water	1.5 mL	10 mL
QIAseq Bead Binding Buffer (one bottle)	7 mL	54 mL
QIAseq Beads (one bottle)	10 mL	38.4 mL

Gene Table

Gene Symbol	Gene Symbol	Gene Symbol	Gene Symbol
ALK	BRAF	CDKN2A	CTNNB1
EGFR	ERBB2	KIT	KRAS
MAP2K1	MET	NF2	NRAS
NTRK1	PIK3CA	PTEN	RB1
RET	ROS1	TP53	TSC2

Functional Groupings

Hotspot Coverage: ALK, BRAF, CDKN2A, CTNNB1, KIT, MAP2K1, NF2, NRAS, NTRK1, PIK3CA, PTEN, RB1, RET, ROS1, TSC2.

Whole Coding Coverage: EGFR, ERBB2, KRAS, MET, TP53.

Adenocarcinomas: ALK, BRAF, CDKN2A, CTNNB1, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, NTRK1, PIK3CA, PTEN, RET, ROS1, TP53, TSC2.

Carcinomas: ALK, BRAF, CTNNB1, EGFR, ERBB2, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, RET.

Non-Small Cell Lung Cancers (NSCLC): ALK, BRAF, CDKN2A, CTNNB1, EGFR, ERBB2, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, PTEN, RET, ROS1, TP53.

Small Cell Lung Cancers (SCLC): ALK, BRAF, CTNNB1, EGFR, ERBB2, KIT, KRAS, MAP2K1, MET, NRAS, NTRK1, PIK3CA, PTEN, RB1, RET, TP53.

Squamous Cell Carcinomas (SCC): ALK, BRAF, CDKN2A, CTNNB1, EGFR, ERBB2, KIT, KRAS, MAP2K1, MET, NRAS, NTRK1, PIK3CA, PTEN, RET, ROS1, TP53, TSC2.

Other Lung Cancer Genes: ALK, BRAF, CTNNB1, EGFR, ERBB2, KIT, KRAS, MAP2K1, MET, NF2, NRAS, NTRK1, PIK3CA, RET.

Ordering Information

Product	Contents	Cat. no.
QIAseq Targeted cfDNA Ultra (12)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 12 samples; less than 200 genes	334051
QIAseq Targeted cfDNA Ultra (96)	All reagents (except indexes) for targeted DNA sequencing; fixed panel for 96 samples; less than 200 genes	334055
QIAseq Targeted cfDNA Ultra Custom (96)	All reagents (except indexes) for targeted DNA sequencing; custom panel for 96 samples	334075
QIAseq Targeted cfDNA Ultra Booster (96)	Pool of primers used in combination with either cataloged or custom panels	334085

QIAseq Targeted cfDNA Ultra Unique Dual Indices

QIAseq Targeted cfDNA Ultra UDI Set A (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set A (of A, B, C, and D) required for multiplexing 384 samples in one run	334165
QIAseq Targeted cfDNA Ultra UDI Set B (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set B (of A, B, C, and D) required for multiplexing 384 samples in one run	334175
QIAseq Targeted cfDNA Ultra UDI Set C (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set C (of A, B, C, and D) required for multiplexing 384 samples in one run	334185
QIAseq Targeted cfDNA Ultra UDI Set D (96)	Box containing unique molecularly indexed adapters and primers, enough for a total of 96 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; Set D (of A, B, C, and D) required for multiplexing 384 samples in one run	334195

Product	Contents	Cat. no.
QIAseq Targeted cfDNA Ultra UDI (12)	Box containing unique molecularly-indexed adapters and primers, enough for a total of 12 samples, for indexing up to 12 samples for targeted panel sequencing on Illumina platforms	334151
Related products		
QIAseq Library Quant Assay Kit	Reagents for quantification of libraries prepared for Illumina or Ion Torrent platforms; assay format	333314
QIAamp Circulating Nucleic Acid Kit (50)	For 50 preps: QIAamp Mini Columns, Tube Extenders (20 mL), QIAGEN Proteinase K, Carrier RNA, Buffers, VacConnectors, and Collection Tubes	55114
QIAamp MinElute ccfDNA Mini Kit (50)	For 50 DNA preps: QIAamp UCP MinElute Columns, QIAGEN Proteinase K, Magnetic Bead Suspension, Buffers, Bead Elution Tubes, Collection Tubes	55204
QIAamp MinElute ccfDNA Midi Kit (50)	For 50 preps: QIAamp UCP MinElute Columns, QIAGEN Proteinase K, Magnetic Bead Suspension, Buffers, Bead Elution Tubes, and Collection Tubes	55284
EZ1&2 ccfDNA Kit (48)	For 48 preps: 48 reagent cartridges (EZ1&2 ccfDNA), Magnetic Bead Suspension, Elution Buffer, Large-Volume Tubes, Disposable Tip Holders, Disposable Filter-Tips, Elution Tubes	984854

QIAseq Targeted cfDNA Ultra Panels are intended for molecular biology applications. These products are not intended for the diagnosis, prevention or treatment of a disease.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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Sample to Insight