

QIAseq Targeted RNAscan Panels

Human Leukemia

Cat. nos. 333602 FHS-001Z-12 and 333605 FHS-001Z-96

For constructing molecularly barcoded libraries from RNA for gene fusion analysis using digital NGS

The QIAseq Targeted RNAscan Human Leukemia Panel allows the use of next-generation sequencing using 156 primers to detect fusions to 27 genes frequently observed in leukemias. Such frequently detected fusions are likely to be relevant or even important to leukemia biology and may be used in translational research to classify samples with known phenotypes. Using the Catalogue of Somatic Mutations in Cancer (COSMIC), frequently detected fusions were collected for acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), B-cell acute lymphoblastic leukemia (B-ALL), chronic myeloid leukemia (CML), chronic myelomonocytic leukemia (CMML), myelodysplastic syndromes (MDS), myeloproliferative neoplasms (MPN), T-cell acute lymphoblastic leukemia (T-ALL), and other leukemias. For the same cancer subtypes, additional fusions were also collected from the Archer Quiver Database, requests and suggestions by QIAGEN KOLs and SMEs, and other peer-reviewed publications. Using digital DNA sequencing, fusions to a focused panel of genes relevant to leukemia can be detected with this primer pool.

For further details, consult the *QIAseq Targeted RNAscan Panels Handbook*.

Shipping and storage

The QIAseq Targeted RNAscan Panel Kit is shipped with dry ice (Box 1) and must be stored at -30 to -15°C upon arrival. Box 2 (QIAseq Beads) is shipped on cold packs and should be stored at 4°C . When stored under these conditions and handled correctly, the product can be kept based on the expiration date on each component without reduction in performance.

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



Panel Contents

| QIAseq Targeted RNAscan Panel Catalog Number | 333602 | 333605 |
|---|---------------|------------------|
| No. of preps | 12 | 96 |
| Box 1 of 2 | | |
| QIAseq Targeted RNAscan Panel | 48 μ l | 384 μ l |
| RP Primer | 12 μ l | 96 μ l |
| EZ Reverse Transcriptase | 12 μ l | 96 μ l |
| BC3 Buffer, 5x | 24 μ l | 192 μ l |
| RNase Inhibitor | 12 μ l | 96 μ l |
| RH RNase | 12 μ l | 96 μ l |
| dNTP | 12 μ l | 96 μ l |
| XC Buffer, 10x | 24 μ l | 192 μ l |
| BX Enzyme | 12 μ l | 96 μ l |
| ERA Enzyme | 120 μ l | 960 μ l |
| ERA Buffer, 10x | 60 μ l | 480 μ l |
| DNA Ligase | 120 μ l | 960 μ l |
| Ligation Buffer, 5x | 240 μ l | 2 x 960 μ l |
| QIAseq RNA Buffer | 300 μ l | 2 x 1200 μ l |
| Nuclease-Free Water | 1.5 ml | 2 x 1500 μ l |
| HotStarTaq® DNA Polymerase | 22 μ l | 180 μ l |
| Handbook | 1 | 1 |
| Box 2 of 2 | | |
| QIAseq Beads | 10 ml | 34 ml |

Gene Table

| Gene Symbol | Gene Symbol | Gene Symbol | Gene Symbol |
|-------------|-------------|-------------|-------------|
| ABL1 | ALK | BCOR | BCR |
| CCDC88C | EML1 | ETV6 | FGFR1 |
| FIP1L1 | FLT3 | JAK2 | KMT2A |
| MLLT1 | MLLT10 | MLLT3 | NDE1 |
| NPM1 | NTRK3 | NUMA1 | PDGFRA |
| PDGFRB | PML | PRKG2 | RANBP2 |
| RARA | RCSD1 | ZMYM2 | |

Functional Groupings

Acute Leukemia of Ambiguous Lineage: ABL1, BCR, ETV6, KMT2A, MLLT10.

Acute Lymphoblastic Leukemia (ALL): ABL1, BCR, EML1, ETV6, FGFR1, FLT3, JAK2, KMT2A, MLLT1, MLLT10, MLLT3, PDGFRB, PML, RARA, RCSD1, ZMYM2.

Acute Myeloid Leukemia (AML): ABL1, ALK, BCOR, BCR, CCDC88C, ETV6, FGFR1, FIP1L1, JAK2, KMT2A, MLLT1, MLLT10, MLLT3, NPM1, NTRK3, NUMA1, PDGFRA, PDGFRB, PML, RANBP2, RARA.

B-Cell Acute Lymphoblastic Leukemia (B-ALL): ABL1, BCR, ETV6, JAK2, KMT2A, MLLT1.

Blast Phase Chronic Myeloid Leukemia: ABL1, BCR, ETV6, JAK2.

Chronic Myeloid Leukemia (CML): ABL1, BCR, CCDC88C, ETV6, JAK2, NDE1, PDGFRB.

Chronic Myelomonocytic Leukemia (CMML): ETV6, KMT2A.

Myelodysplastic Syndromes (MDS): ABL1, ALK, ETV6, JAK2, KMT2A, NDE1, NPM1, PDGFRB, RANBP2.

Myeloproliferative Neoplasms: ABL1, BCR, ETV6, FGFR1, FIP1L1, FLT3, JAK2, NPM1, PDGFRB, PRKG2, RARA, ZMYM2.

T-Cell Acute Lymphoblastic Leukemia (T-ALL): ABL1, BCR, ETV6, JAK2, KMT2A, MLLT1, MLLT10.

Other Leukemias: NPM1.

Commercial Control Samples: ALK, ETV6, NTRK3.

Ordering Information

| Product | Contents | Cat. no. |
|---------------------------------------|---|----------|
| QIAseq Targeted RNAscan Panel (12) | Kit containing reagents for first strand synthesis, second strand synthesis, end-repair/A-addition, gene specific amplification and QIAseq Beads for targeted RNAscan sequencing, fixed panel for 12 samples | 333602 |
| QIAseq Targeted RNAscan HC Panel (12) | Kit containing reagents for first strand synthesis, second strand synthesis, end-repair/A-addition, gene specific amplification and QIAseq Beads for targeted RNAscan sequencing, fixed panel for 12 samples | 333612 |
| QIAseq Targeted RNAscan Panel (96) | Kit containing reagents for first strand synthesis, second strand synthesis, end-repair/A-addition, gene specific amplification and QIAseq Beads for targeted RNAscan sequencing, fixed panel for 96 samples | 333605 |
| QIAseq Targeted RNAscan HC Panel (96) | Kit containing reagents for first strand synthesis, second strand synthesis, end-repair/A-addition, gene specific amplification and QIAseq Beads for targeted RNAscan sequencing, fixed panel for 96 samples | 333615 |
| QIAseq Targeted RNAscan Custom Panel | Kit containing reagents for first strand synthesis, second strand synthesis, end-repair/A-addition, gene specific amplification and QIAseq Beads for targeted RNAscan sequencing, custom panel for 96 samples | 333625 |
| QIAseq 12-Index I (48) | Box containing oligos, enough for a total of 48 samples, for indexing up to 12 samples for targeted panel sequencing on Illumina platforms | 333714 |
| QIAseq 96-Index I Set A (384) | Box containing oligos, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; one of four sets | 333727 |
| QIAseq 96-Index I Set B (384) | Box containing oligos, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; two of four sets | 333737 |
| QIAseq 96-Index I Set C (384) | Box containing oligos, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; three of four sets required for multiplexing 384 samples | 333747 |

| Product | Contents | Cat. no. |
|--|--|----------|
| QIAseq 96-Index I Set D (384) | Box containing oligos, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Illumina platforms; four of four sets required for multiplexing 384 samples | 333757 |
| QIAseq 12-Index L (48) | Box containing oligos, enough for a total of 48 samples, for indexing up to 12 samples for targeted panel sequencing on Ion Torrent platforms | 333764 |
| QIAseq 96-Index L (384) | Box containing oligos in arrays, enough for a total of 384 samples, for indexing up to 96 samples for targeted panel sequencing on Ion Torrent platforms | 333777 |
| Related products | | |
| Human XpressRef Universal Total RNA | 2 tubes each containing 100 µg human RNA at 1 mg/ml | 338112 |
| RNeasy Mini Kit (50) | 50 RNeasy Mini Spin Columns, Collection Tubes (1.5 ml and 2 ml), RNase-free reagents and buffers | 74104 |
| RNeasy FFPE Kit (50) | 50 RNeasy MinElute® Spin Columns, Collection Tubes, Proteinase K, RNase-Free DNase I, DNase Booster Buffer, RNase-free buffers, Nuclease-free water | 73504 |
| PAXgene® Blood RNA Kit (50) | 50 PAXgene Spin Columns, 50 PAXgene Shredder Spin Columns, Processing Tubes, RNase-Free DNase I, RNase-free reagents and buffers; to be used in conjunction with PAXgene Blood RNA Tubes | 762174 |
| RNeasy Microarray Tissue Mini Kit (50) | RNeasy Mini Spin Columns, Collection Tubes, QIAzol® Lysis Reagent, RNase-free reagents and buffers | 73304 |
| RNeasy Micro Kit (50) | 50 RNeasy MinElute Spin Columns, Collection Tubes (1.5 ml and 2 ml), RNase-free DNase I, Carrier RNA, RNase-free reagents and buffers | 74004 |
| QIAamp® RNA Blood Mini Kit (50) | 50 QIAamp Mini Spin Columns, 50 QIAshredder Spin Columns, Collection Tubes (1.5 ml and 2 ml), RNase-free reagents and buffers | 52304 |

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

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Sample to Insight