

# XCeloSeq<sup>®</sup> Acute Lymphoblastic Leukaemia Fusion Kit

SEQ019

## Product Description

The XCeloSeq Acute Lymphoblastic Leukaemia Fusion Kit contains a pool of targeted RNA enrichment primers located in conserved fusion partners for identification of both known and unknown fusions from RNA. These primers are designed for use only with XCeloSeq Targeted RNA Core Reagents (GF031). Together they allow for the generation of high quality, high-complexity next-generation sequencing libraries that are suitable for use with Illumina<sup>®</sup> next-generation sequencing instruments.

## Kit Contents

Component	Tube Colour	Cap Colour	Storage	Part Code
Acute Lymphoblastic Leukaemia Fusion Kit – Outer Pool	Transparent	Orange	-20°C	PC0252
Acute Lymphoblastic Leukaemia Fusion Kit – Inner Pool	Transparent	Black	-20°C	PC0253

## Specifications

Gene Targets	44
Targeting Primers <sup>%</sup>	317
Recommended Input Quantity <sup>*</sup>	5-200 ng total FFPE-RNA
	5-100 ng high quality RNA
Recommended Reads Per Sample	2,750,000
Hands on Time	2.0 Hours
Total Protocol Time	7.25 hours

<sup>%</sup>An additional 8 QC primers are included

<sup>\*</sup>Higher quantities within this range will improve maximum sensitivity. The product supports capture with down to 1.0 ng of RNA, however this is not recommended as it will lead to reduced sensitivity. Cell-free RNA and total cell-free nucleic acids may be used as alternative starting materials, however fusion detection sensitivity will be lower due to cell-free RNA concentrations typically being very low, when using this material maximising starting input quantity will help ensure the best possible results.

## Assay Targets

Gene	Accession	Exon(s)	Fusion Direction
<b>ABL1</b>	NM_005157	1, 2, 3, 4, 5	5'
<b>ABL2</b>	NM_005158	2, 3, 4, 5, 6, 7, 8	5'
<b>BCL11B</b>	NM_138576	2, 3	3'
		3, 4	5'
<b>BCL2</b>	NM_000633	3	3'
		2	5'
<b>BCL6</b>	NM_001706	2,3	5'
<b>BCR</b>	NM_004327	1, 2, 3, 8, 12, 13, 14, 15, 16	3'
<b>CHD1</b>	NM_001270	1, 2	5'
<b>CREBBP</b>	NM_004380	2, 3, 4, 5, 6	5'
<b>CRLF2</b>	NM_005211	1	5'
<b>CSF1R</b>	NM_005211	9, 10, 11, 12, 13, 14	5'
<b>EBF1</b>	NM_024007	10, 11, 12, 13, 14, 15	3'
<b>EPOR</b>	NM_000121	7, 8	3'
<b>ETV6</b>	NM_001987	1, 2, 3, 4, 5, 6	3'
		2, 3, 4, 5, 6, 7	5'
<b>FGFR1</b>	NM_023110	12, 17	3'
		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17	5'
<b>IKZF1</b>	NM_006060	1, 2, 3	3'
		7, 8	5'
<b>IKZF2</b>	NM_016260	3, 4	3'
<b>IKZF3</b>	NM_012481	2, 3, 4, 5, 6, 7	3'
<b>JAK2</b>	NM_004972	9, 10, 11, 12	3'
		6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	5'
<b>KLF2</b>	NM_016270	2, 3	
<b>KMT2A</b>	NM_005933	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35	3'
		2, 3	5'
<b>MLLT4</b>	NM_001040000	2	5'
<b>MYC</b>	NM_002467	1, 2	5'
<b>NF1</b>	NM_000267	14	3'
		36	5'
<b>NOTCH1</b>	NM_017617	24	3'
		24, 25, 26, 27, 28, 29	5'
		34 (exon skipping)	
<b>NTRK3</b>	NM_002530	4, 7, 10, 12, 13, 14, 15, 16	5'
		13, 14, 15	3'
	NM_001007156	15	5'
<b>NUP214</b>	NM_005085	17, 18, 19	5'

Gene	Accession	Exon(s)	Fusion Direction
NUP98	NM_016320	8, 9, 10, 11, 12, 13, 14, 15, 16, 17	3'
		12, 13	5'
P2RY8	NM_178129	1	3'
PAG1	NM_018440	2	5'
PAX5	NM_016734	1, 4, 5, 6, 7, 8	3'
		6, 7, 8	5'
PBX1	NM_002585	1, 2, 3, 4, 5, 6, 7, 8, 9	5'
PDCD1LG2	NM_025239	5, 6	3'
		1, 2, 3	5'
PDGFRA	NM_006206	9, 10, 11, 12, 13, 14	5'
PDGFRB	NM_002609	8, 9, 10, 11, 12, 13, 14	5'
PICALM	NM_007166	16, 17, 18, 19	3'
PTK2B	NM_173176	2, 3, 4, 5, 6, 7, 8	5'
RUNX1	NM_001754	2, 3, 4, 5, 6, 7, 8	3'
		5, 6, 7, 8, 9	5'
SEMA6A	NM_020796	1, 2	3'
SETD2	NM_014159	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12	3'
STIL	NM_003035	1, 2	3'
TAL1	NM_003189	2, 4	5'
	NM_001290404	2, 3	5'
TCF3	NM_003200	11, 12, 13, 14, 15, 16, 17, 18	3'
TYK2	NM_003331	16, 18	5'
ZCCHC7	NM_032226	1, 2	3'
		2, 3, 4	5'

## Additional Information

Please refer to “XCeloSeq Targeted RNA Enrichment Protocol” for instructions for use.

## Limitations of Use

### For Research Use Only (RUO)

This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

SDS sheets relevant to this product are available upon request.

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