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Product Insert

XCeloSeq® Lymphoma Fusion Kit

SEQ018

Product Description

The XCeloSeq Lymphoma 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® next-generation sequencing instruments.

Kit Contents

Component	Tube Colour	Cap Colour	Storage	Part Code
Lymphoma Fusion Kit – Outer Pool	Transparent	**Orange**	-20°C	PC0455
Lymphoma Fusion Kit – Inner Pool	Transparent	**Black**	-20°C	PC0456

Kit Specifications and Recommendations

Gene Targets	33
Targeting Primers[%]	241
Recommended Input Quantity[*]	5-200 ng FFPE derived total RNA
	5-100 ng high quality RNA
Recommended Reads Per Sample[#]	2,500,000 (Dual index, 150 bp paired-end)
Hands on Time	2.0 hours
Total Protocol Time	7.25 hours

[%]An additional 8 QC primers are included

[*]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.

[#]When using cfRNA up to 10 times as much sequencing may be needed to ensure that enough RNA derived reads are in the final sequencing data. Users are recommended to assess this on the sample-by-sample basis.

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Assay Targets

Gene	Accession	Exon(s)	Fusion Direction
ALK	NM_004304.5	2, 4, 6, 10, 16 17, 18, 19 (and intron 19), 20, 21, 22, 23, 26	5’
BCL2	NM_000633.2	3	3
		2	5
BCL6	NM_001706.5	2,3	5’
BCR	NM_004327.4	1, 2, 3, 8, 12, 13, 14, 15, 16	3’
BIRC3	NM_001165.5	4, 5, 6, 7	3’
CBFB	NM_022845.3	4, 5	3’
CCND1	NM_053056.3	5	3’
CCND3	NM_001760.4	2	5’
CDK6	NM_001259.8	1, 2, 3, 4	3’
CHIC2	NM_012110.4	1, 2, 3	3’
CIITA	NM_000246.3	1, 2	3’
CREBBP	NM_004380.3	2, 3, 4, 5, 6	5’
DEK	NM_003472.4	2, 3	3’
DUSP22	NM_020185.4	1, 2	3’
EIF4A1	NM_001416.4	2,3	5’
ETV6	NM_001987.5	1, 2, 3, 4, 5, 6	3’
		2, 3, 4, 5, 6	5’
FGFR1	NM_023110.4	12, 17	3’
		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17	5’
JAK2	NM_004972.5	9, 10, 11, 12	3’
		6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20	5’
KMT2A	NM_005933.4	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’
MALT1	NM_006785.5	9	3’
MLF1	NM_022443.5	2, 3, 4	5’
MLLT10	NM_004641.3	7, 8, 9, 10	3’
		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18	5’
MRTFA	NM_020831.6	4, 5, 6	5’
MYC	NM_002467.6	1, 2	5’
NFKB2	NM_002502.6	14, 15, 16, 17, 18, 19, 20, 21	3’
NOTCH1	NM_017617.5	24	3’
		24, 25, 26, 27, 28, 29	5’
		34 (exon skipping)	
P2RY8	NM_178129.5	1	3’
PDCD1LG2	NM_025239.4	5, 6	3’
		1, 2, 3	5’

Gene	Accession	Exon(s)	Fusion Direction
PDGFRA	NM_006206.6	9, 10, 11, 12, 13, 14	5’
PRDM16	NM_022114.4	1, 2, 3, 4	5’
STIL	NM_003035.2	1, 2	3’
TCF3	NM_003200.5	11, 12, 13, 14, 15, 16, 17, 18	3’
TP63	NM_003722.5	3, 4, 5	5’

Additional Information

Please refer to “XCeloSeq Targeted RNA Enrichment Protocol with UDIs” 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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