

## XCeloSeq® Sarcoma Fusion Kit

SEQ014

### Product Description

The XCeloSeq Sarcoma 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
Sarcoma Fusion Kit – Outer Pool	Transparent	Orange	-20°C	PC0250
Sarcoma Fusion Kit – Inner Pool	Transparent	Black	-20°C	PC0251

### Kit Specifications and Recommendations

Gene Targets	26
Targeting Primers <sup>%</sup>	146
Recommended Input Quantity <sup>*</sup>	5-200 ng FFPE derived total RNA
	5-100 ng high quality RNA
Recommended Reads Per Sample <sup>#</sup>	1,500,000 (Dual index, 150 bp paired-end)
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.

<sup>#</sup>When using cfrRNA up to 10 times as much sequencing may be needed to ensure that enough RNA derived reads are in the final sequencing library. Users are recommended to assess this on the sample-by-sample basis.

## Assay Targets

Gene	Accession	Exon(s)	Fusion Direction
ALK	NM_004304.5	19, 20, 21, 22	5'
CAMTA1	NM_015215.4	8, 9, 10	5'
CCNB3	NM_033031.3	2, 3, 4, 5, 6	5'
CIC	NM_015125.4	19, 20	3'
EPC1	NM_025209.4	9, 10, 11	3'
EWSR1	NM_005243.4	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	3'
FOXO1	NM_002015.4	1, 2, 3	5'
		1, 2, 3	3'
FUS	NM_004960.3	4, 5, 6, 7, 8, 9, 10, 11, 14	3'
GLI1	NM_005269.3	4, 5, 6, 7	5'
		4, 5, 6, 7	3'
HMGA2	NM_003483.4	1, 2, 3, 4, 5	3'
JAZF1	NM_175061.4	2, 3, 4	3'
MEAF6	NM_001270875.2	4, 5	3'
MRTFB	NM_014048.4	11, 12, 13	5'
NCOA2	NM_006540.4	11, 12, 13, 14	5'
NTRK3	NM_002530.4	4, 7, 10, 12, 13, 14, 15, 16	5'
		13, 14, 15	3'
	NM_001007156.2	15	5'
PDGFB	NM_002608.4	2, 3	5'
PLAG1	NM_002655.3	1, 2, 3, 4	5'
ROS1	NM_002944.2	31, 32, 33, 34, 35, 36, 37	5'
SS18	NM_001007559.3	10, 11	5'
		4, 5, 6, 8, 9, 10	3'
STAT6	NM_001178078.2	1, 2, 3, 4, 5, 6, 7, 16, 17, 18, 19	5'
TAF15	NM_139215.3	6, 7	5'
		5, 6, 7	3'
TCF12	NM_207036.2	4, 5, 6	3'
TFE3	NM_006521.6	3, 4, 5, 6	5'
TFG	NM_006070.6	4, 5, 6, 7	3'
		6	5'
USP6	NM_004505.4	1, 2, 3	5'
YWHAE	NM_006761.5	5	3'

## 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.