

XCeloSeq® Solid Cancer Fusion Kit

SEQ012

Product Description

The XCeloSeq Solid Cancer Fusion Kit contains a pool of targeted RNA enrichment primers 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
Solid Cancer Fusion Kit – Outer Pool	Transparent	Orange	-20°C	PC0053
Solid Cancer Fusion Kit – Inner Pool	Transparent	Black	-20°C	PC0054

Specifications

Gene Targets	53
Targeting Primers [%]	350
Recommended Input Quantity [*]	5-200 ng total RNA
Recommended Read Number [#]	3,000,000
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, recommended maximum is 200 ng total RNA. The product supports capture with down to 1.0 ng of RNA, however this is not recommended as it will lead to reduced sensitivity. Total FFPE-RNA and cell-free RNA are supported as alternative starting materials, when using these materials maximising starting material will where possible help ensure high quality results.

Assay Targets

Gene	Accession	Exon(s)	Fusion Direction
AKT3	NM_005465	1, 2, 3	5'
ALK	NM_004304	2, 4, 6, 10, 16 17, 18, 19 (and intron 19), 20, 21, 22, 23, 26	5'
ARHGAP26	NM_015071	2, 10, 11, 12	5'
AXL	NM_021913	19, 20	5'
BRAF	NM_004333	2, 7, 8, 9, 10, 11, 12, 15, 16	5'
		1, 3, 7, 8, 10, 13	3'
BRD3	NM_007371	9, 10, 11, 12	3'
BRD4	NM_058243	10, 11	3'
EGFR	NM_005228	7 (Exon 2-7 Skipping), 8, 9, 16, 19, 20	5'
		1 (Exon 2-7 Skipping), 24, 25	3'
ERG	NM_004449	2, 3, 4, 5, 6, 7, 8, 9, 10, 11	5'
ESR1	NM_001122742	1, 2, 3, 4, 5, 6	3'
ETV1	NM_004956	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	5'
ETV4	NM_001986	2, 4, 5, 6, 7, 8, 9, 10	5'
ETV5	NM_004454	2, 3, 7, 8, 9	5'
ETV6	NM_001987	2, 3, 5, 6, 7	5'
		1, 2, 3, 4, 5, 6	3'
EWSR1	NM_005243	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	3'
FGFR1	NM_015850	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17	5'
		12, 17	3'
FGFR2	NM_000141	2, 5, 7, 8, 9, 10	5'
		16, 17	3'
FGFR3	NM_000142	3, 5, 8, 9, 10	5'
		16, 17 (and intron 17), 18	3'
FGR	NM_005248	2	5'
INSR	NM_000208	12, 13, 14, 15, 16, 17, 18, 19	5'
		20, 21, 22	3'
MAML2	NM_032427	2, 3	5'
MAST1	NM_014975	7, 8, 9, 18, 19, 20, 21	5'
MAST2	NM_015112	2, 3, 5, 6	5'
MET	NM_000245	2, 4, 5, 6, 13, 14, 15 (exon 14 skipping event), 16, 17, 21	5'
		2, 13 (exon 14 skipping event)	3'
MSMB	NM_002443	2, 3, 4	3'
MUSK	NM_005592	7, 8, 9, 11, 12, 13, 14	5'
MYB	NM_001130173	7, 8, 9, 11, 12, 13, 14, 15, 16	3'

Gene	Accession	Exon(s)	Fusion Direction
NOTCH1	NM_017617	26, 27, 28, 29 (internal deletion exons 3-27)	5'
		2, 4, 29, 30, 31	3'
NOTCH2	NM_024408	26, 27, 28	5'
		5, 6, 7	3'
NRG1	NM_004495	1, 2, 3, 4, 6	5'
	NM_013957	1, 8	5'
	NM_013957	1	3'
NTRK1	NM_002529	2, 4, 6, 8, 10, 11, 12, 13	5'
NTRK2	NM_006180	5, 7, 9, 11, 12, 13, 14, 15, 16, 17	5'
NTRK3	NM_002530	4, 7, 10, 12, 13, 14, 15, 16	5'
	NM_001007156	15	5'
NUMBL	NM_004756	3	5'
NUTM1	NM_175741	3	5'
PDGFRA	NM_006206	10, 11, 12, 13, 14	5'
		7 (exon 8 deletion)	3'
PDGFRB	NM_002609	8, 9, 10, 11, 12, 13, 14	5'
PIK3CA	NM_006218	2	5'
PKN1	NM_002741	10, 11, 12, 13	5'
PPARG	NM_015869	1, 2, 3, 4	5'
PRKCA	NM_002737	4, 5, 6	5'
PRKCB	NM_002738	3	5'
RAF1	NM_002880	4, 5, 6, 7, 9, 10, 11, 12	5'
		4, 5, 6, 7, 9	3'
RELA	NM_021975	3, 4	5'
RET	NM_020975	8, 9, 10, 11, 12, 13	5'
ROS1	NM_002944	31, 32, 33, 34, 35, 36, 37	5'
RSPO2	NM_178565	1, 2	5'
RSPO3	NM_032784	2	5'
TERT	NM_198253	2	5'
TFE3	NM_006521	2, 3, 4, 5, 6, 7, 8	5'
		2, 3, 4, 5, 6	3'
TFEB	NM_007162	1, 2	5'
THADA	NM_022065	24, 25, 26, 27, 28, 29, 30	3'
TMPRSS2	NM_005656	1	3'
	NM_001135099	1, 2, 3, 4, 5, 6	3'



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.