

Seraseq® Sarcoma Plus RNA Fusion Mix

A pan-cancer RNA fusion reference material with an emphasis on sarcoma-related fusions

INTRODUCTION

As diagnostic testing for chromosomal translocations and other complex structural variants continues to shift from single-site methods such as Fluorescent In Situ Hybridization (FISH) and targeted reverse transcription PCR (RT-PCR) to highly multiplexed next-generation sequencing (NGS) assays, there is an increasing need for highly multiplexed reference materials covering such alterations which may be rare or difficult to obtain from patient samples. SeraCare continues to innovate to address this critical market need with an expanded reference material designed for use with NGS assays that detect gene fusions via sequencing of RNA transcripts.

SeraCare has long supported RNA fusion studies with many novel RNA fusion reference material offerings. Seraseq Sarcoma Plus RNA Fusion Mix is a new product which is complementary to existing RNA fusion product offerings.

Seraseq Sarcoma Plus RNA Fusion Mix is a highly multiplexed pan-cancer RNA reference material containing 30 RNA fusion transcripts in a single sample. This will allow for more rapid validation of assays using fewer samples and more comprehensive performance monitoring of routine NGS runs.

FEATURES AND BENEFITS

- 30 clinically relevant RNA fusions including 10 sarcoma-relevant fusions.
- Pan-cancer standard with a slight emphasis on sarcoma and less common fusions.
- Manufactured in the same manner as the rest of our best-in-class RNA fusion products.
- Variants precisely quantitated with digital PCR and orthogonally validated by NGS.
- Blended with well-characterized GM24385 total RNA as background wild-type material.
- Manufactured in cGMP-compliant, ISO 13485 certified facilities.

ORDERING INFORMATION

Material #	Product	Concentration*	Fill Volume	Total Mass
0710-3809	Seraseq® Sarcoma Plus RNA Fusion Mix	25 ng/μL	20 μL	500 ng

*Concentration targets are based on the Qubit dsDNA BR Assay.

HIGHLIGHTS

30 RNA fusions for a range of solid tumors with an emphasis on sarcoma.

Complementary to existing Seraseq RNA fusion products.

Consistently performing with batch-specific copy number information provided.

MUTATIONS PRESENT IN SERASEQ® SARCOMA PLUS RNA FUSION MUTATION MIX

RNA Fusion	5' Partner Exon	3' Partner Exon
EWSR1::ERG	EWSR1 exon 10	ERG exon 11
KIF5B::ALK	KIF5B exon 24	ALK exon 20
CD74::NRG1	CD74 exon 5	NRG1 exon 6
EZR::ROS1	EZR exon 10	ROS1 exon 34
PRKAR1A::RET	PRKAR1A exon 7	RET exon 12
STRN::ALK	STRN exon 3	ALK exon 20
TPM3::ALK	TPM3 exon 7	ALK exon 20
AR-V7	AR exon 3	AR cryptic exon 3
BRD4::NUTM1	BRD4 exon 11	NUTM1 exon 2
RANBP2::ALK	RANBP2 exon 18	ALK exon 20
TPM3::ROS1	TPM3 exon 8	ROS1 exon 35
EWSR1::FLI1	EWSR1 exon 7	FLI1 exon 6
EWSR1::ETV1	EWSR1 exon 10	ETV1 exon 14
PAX3::FOXO1	PAX3 exon 7	FOXO1 exon 2
SDC4::ROS1	SDC4 exon 2	ROS1 exon 32
EWSR1::WT1	EWSR1 exon 10	WT1 exon 6
FGFR1::TACC1	FGFR1 exon 17	TACC1 exon 7
FGFR2::CCDC6	FGFR2 exon 17	CCDC6 exon 2
SLC45A3::ERG	SLC45A3 exon 1	ERG Exon 4
SND1::BRAF	SND1 exon 10	BRAF exon 9
TMPRSS2::ETV1	TMPRSS2 exon 2	ETV1 exon 8
TRIM24::BRAF	TRIM24 exon 5	BRAF exon 8
TRIM24::RET	TRIM24 exon 9	RET exon 12
EWSR1::ATF1	EWSR1 exon 8	ATF1 exon 4
FGFR3::TACC3	FGFR3 exon 17	TACC3 exon 10
KIAA1549::BRAF	KIAA1549 exon 15	BRAF exon 9
PAX7::FOXO1	PAX7 exon 7	FOXO1 exon 2
SS18::SSX1	SS18 exon 10	SSX1 exon 6
SS18::SSX2	SS18 exon 10	SSX2 exon 6
COL1A1::PDGFB	COL1A1 exon 25	PDGFB exon 2

NOTE: Above list does not include variants present in the GM24385 background

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