Seraseq® cfRNA Fusion Mix

A pan-cancer RNA fusion reference material for cfRNA

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 portfolio designed for use with NGS assays that detect gene fusions via sequencing of RNA transcripts. With the continued utility of liquid biopsy improving cancer management, we are introducing a purpose-built reference material to support cell-free RNA (cfRNA) assays.

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

Seraseq cfRNA Fusion Mix is a highly multiplexed pan-cancer RNA reference material containing 19 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

HIGHLIGHTS

19 RNA fusions for a range of solid tumor fusions

Supporting cfRNA optimized assays

Consistently performing with batch-specific copy number information provided

FEATURES AND BENEFITS

- 19 clinically relevant RNA fusions
- Pan-cancer standard optimized for cfRNA assays
- Fragmented to mimic the size of cfRNA
- 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 Size	Total Mass
0710-4078	Seraseq® cfRNA Fusion Mix	10 ng/µL	25µL	250 ng

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

MUTATIONS PRESENT IN SERASEQ® CFRNA FUSION MIX

RNA Fusion	5' Partner Exon	3' Partner Exon
CCDC6::RET	CCDC6 exon 1	RET exon 12
CD74::ROS1	CD74 exon 6	ROS1 exon 35
EGFR Variant III	EGFR exon 1	EGFR exon 8
EGFR::SEPTIN14	EGFR exon 24	SEPTIN14 exon 10
EML4::ALK	EML4 exon 13	ALK exon 20
ETV6::NTRK3	ETV6 exon 5	NTRK3 exon 15
FGFR3::BAIAP2L1	FGFR3 exon 17	BAIAP2L1 exon 2
FGFR3::TACC3	FGFR3 exon 17	TACC3 exon 11
KIF5B::RET	KIF5B exon 24	RET exon 11
LMNA::NTRK1	LMNA exon 2	NTRK1 exon 11
MET ex 14 Skipping	MET exon 13	MET exon 15
NCOA4::RET	NACC2 exon 7	RET exon 12
PAX8::PPARG	PAX8 exon 9	PPARG exon 3
SLC34A2::ROS1	SLC34A2 exon 4	ROS1 exon 35
SLC45A3::BRAF	SLC45A3 exon 1	BRAF exon 8
TFG::NTRK1	TFG exon 5	NTRK1 exon 10
TMPRSS2::ERG	TMPRSS2 exon 1	ERG exon 2
FGFR1::TACC1	FGFR1 exon 17	TACC1 exon 7
FGFR2::CCDC6	FGFR2 exon 17	CCDC6 exon 2
CCDC6::RET	CCDC6 exon 1	RET exon 12
CD74::ROS1	CD74 exon 6	ROS1 exon 35
EGFR Variant III	EGFR exon 1	EGFR exon 8
EGFR::SEPTIN14	EGFR exon 24	SEPTIN14 exon 10
EML4::ALK	EML4 exon 13	ALK exon 20
ETV6::NTRK3	ETV6 exon 5	NTRK3 exon 15
FGFR3::BAIAP2L1	FGFR3 exon 17	BAIAP2L1 exon 2
FGFR3::TACC3	FGFR3 exon 17	TACC3 exon 11
KIF5B::RET	KIF5B exon 24	RET exon 11
LMNA::NTRK1	LMNA exon 2	NTRK1 exon 11
MET ex 14 Skipping	MET exon 13	MET exon 15

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

ABOUT US

SeraCare offers a comprehensive portfolio of reference materials for oncology and reproductive health, designed and manufactured to meet the precision demanded by NGS assays. The portfolio includes high quality ground-truth RNA, ctDNA and genomic DNA-based reference materials that are NGS platform agnostic for tumor profiling, immuno-oncology, liquid biopsy, NIPT and germline cancer assay workflows. **For more information visit seracare.com**

MKT-01220 Rev. 1

seracare.com • 508.244.6400 • 800.676.1881 Toll Free • 508.634.3334 Fax