

Seraseq[®] Fusion RNA Reference Materials

THE MOST COMPREHENSIVE REFERENCE MATERIALS FOR RNA FUSIONS

HIGHLIGHTS

HIGHLY MULTIPLEXED REFERENCE MATERIAL CONTAINING CLINICALLY-SIGNIFICANT RNA FUSIONS PRIMARILY FOUND IN SOLID TUMORS.

QUANTIFIED TRANSCRIPT LEVELS ALLOW EASY LIMIT OF DETECTION STUDIES TO ESTABLISH ASSAY SENSITIVITY.

HIGH-QUALITY MANUFACTURED REFERENCE MATERIAL GUARANTEES CONSISTENT GROUND TRUTH.

INTRODUCTION

The field of oncology is rapidly translating the volumes of genomic and genetic discoveries from the past decade into routine clinical care. Detection of difficult structural variants via Next-Generation Sequencing (NGS) is an area where highly multiplexed assays have started to replace manual fluorescent in-situ hybridization (FISH).

SeraCare has developed Seraseq Fusion RNA reference materials in a highly multiplexed format to match these new highly multiplexed NGS assays. This product is offered in both a purified RNA format (Seraseq Fusion RNA Mix v4) for ease of use in evaluating library preparation and sequencing, as well as a full-process FFPE reference material (Seraseq FFPE Fusion RNA Reference Material v4) to assess performance starting with pre-analytical steps. Both formats offer the most comprehensive panel of fusion RNAs (Table 1) in any commercially available reference material.

FUSIONS INCLUDED IN THE SERASEQ FUSION RNA REFERENCE MATERIAL

CCDC6-RET	EML4-ALK	KIF5B-RET	PAX8-PPARG1	TMPRSS2-ERG
CD74-ROS1	ETV6-NTRK3	LMNA-NTRK1	SLC34A2-ROS1	TPM3-NTRK1
EGFR Variant III	FGFR3-BAIAP2L1	MET ex 14 Skipping	SLC45A3-BRAF	
EGFR-SEPT14	FGFR3-TACC3	NCOA4-RET	TFG-NTRK1	

FEATURES AND BENEFITS

- Determine your assay sensitivity across 18 clinically relevant gene fusions, an exon-skipping variant as well as a multi-exon deletion, in a single run.
- Eliminate time and cost associated with sourcing and processing individual cell lines that are positive for a single cancer-relevant mutation or gene fusion.
- Select the format that best fits your needs whether you are developing, validating, or monitoring a clinical NGS fusion RNA assay.
- Easily perform limit of detection (LoD) studies using transcript level established by highly sensitive digital PCR assays.
- Manufactured within cGMP compliant, ISO 13485-certified facilities.

ABOUT SERACARE

TRUSTED SUPPLIER TO THE DIAGNOSTIC TESTING INDUSTRY FOR OVER 30 YEARS.

HIGH-QUALITY CONTROL PRODUCTS, RAW BIOLOGICAL MATERIALS, AND IMMUNOASSAY REAGENTS.

INNOVATIVE TOOLS AND TECHNOLOGIES TO PROVIDE ASSURANCE IN DIAGNOSTIC ASSAY PERFORMANCE AND TEST RESULTS.

FOR MORE INFORMATION, PLEASE VISIT OUR WEBSITE: WWW.SERACARE.COM.

RNA Fusion	5' Partner	3' Partner	HGVS Name
CCDC6-RET	CCDC6 ex 1	RET ex 12	CCDC6{NM_005436.5}:r.1_435_RET{NM_020975.6}:r.2327_5617
CD74-ROS1	CD74 ex 6	ROS1 ex 34	CD74{NM_001025159.2}:r.1_812_ROS1{NM_002944.2}:r.5757_7368
EGFR Variant III	EGFR ex 1	EGFR ex 8	EGFR{NM_005228.5}:r.350_1150del
EGFR-SEPT14	EGFR ex 24	SEPT14 ex 10	EGFR{NM_005228.5}:r.1_3207_SEPT14{NM_007366.3}:r.1200_3752
EML4-ALK	EML4 ex 13	ALK ex 20	EML4{NM_019063.4}:r.1_1763_ALK{NM_004304.4}:r.4125_6265
ETV6-NTRK3	ETV6 ex 5	NTRK3 ex 15	ETV6{NM_001987.4}:r.1_1283_NTRK3{NM_001012338.2}:r.1892_3004
FGFR3-BAIAP2L1	FGFR3 ex 17	BAIAP2L1 ex 2	FGFR3{NM_000142.4}:r.1_2530_BAIAP2L1{NM_001884.4}:r.315_3682
FGFR3-TACC3	FGFR3 ex 17	TACC3 ex 11	FGFR3{NM_000142.4}:r.1_2530_TACC3{NM_006342.3}:r.2066_2799
KIF5B-RET	KIF5B ex 24	RET ex 11	KIF5B{NM_004521.2}:r.1_3231_RET{NM_020975.6}:r.2070_5617
LMNA-NTRK1	LMNA ex 2	NTRK1 ex 10	LMNA{NM_170707.3}:r.1_762_NTRK1{NM_001012331.1}:r.1290_2647
MET ex 14 Skipping	MET ex 13	MET ex 15	MET{NM_001127500.3}:r.3338_3478del
NCOA4-RET	NCOA4 ex 8	RET ex 12	NCOA4{NM_001145260.1}:r.1_1014_RET{NM_0020975.6}:r.2327_5617
PAX8-PPARG1	PAX8 ex 9	PPARG1 ex 3	PAX8{NM_003466.4}:r.1_1253_PPARG{NM_00138712.3}:r.246_1892
SLC34A2-ROS1	SLC34A2 ex 4	ROS1 ex 34	SLC34A2{NM_006424.2}:r.1_460_ROS1{NM_002944.2}:r.5757_7368
SLC45A3-BRAF	SLC45A3 ex 1	BRAF ex 8	SLC45A3{NM_033102.3}:r.1_109_BRAF{NM_004333.5}:r.1206_4560
TFG-NTRK1	TFG ex 5	NTRK1 ex 9	TFG{NM_006070.5}:r.1_851_NTRK1{NM_001012331.1}:r.1234_2647
TMPRSS2-ERG	TMPRSS2 ex 1 (5' UTR)	ERG ex 2	TMPRSS2{NM_005656.3}:r.1_78_ERG{NM_004449.4}:r.124_5042
TPM3-NTRK1	TPM3 ex 7	NTRK1 ex 9	TPM3{NM_153649.3}:r.1_794_NTRK1{NM_001012331.1}:r.1234_2647

Table 1: Gene fusions and genomic coordinates

ORDERING INFORMATION

Each part code is available for individual purchase.

Product	Format	Part Code	Concentration	Volume	Total Mass
Seraseq FFPE Fusion RNA Reference Material v4	Extraction Required - FFPE	0710-0496	1 FFPE curl / vial	10 µm	>400 ng*
Seraseq Fusion RNA Mix v4	No extraction Required - Purified RNA in buffer	0710-0497	25ng/µL	25 µL	625 ng

* Based on Qiagen AllPrep RNA extraction kit and Qubit RNA HS quantitation assay.



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