

LungFUSION™ Panel

Screen for *ALK*, *RET*, and *ROS1* Translocations in Non-Small Cell Lung Cancer Tumors

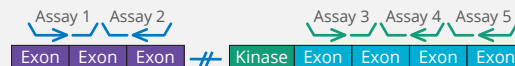
Agena Bioscience's LungFUSION™ Panel, developed by Assays by Agena for use on the MassARRAY® System, offers a rapid screening method for detecting an oncogenic fusion partner in *ALK*, *RET*, or *ROS1* genes. Fusion partners in any of these genes have been correlated with targeted therapies for the treatment of lung cancer. The research panel, for use on the MassARRAY System, offers:

- ✓ Minimal sample requirements with only 10 ng cDNA template in a single well assay.
- ✓ An internal *GAPDH* standard to assess RNA quality and genomic DNA contamination.
- ✓ Built-in *EML4* controls to determine endogenous expression of wild-type lung tissue.

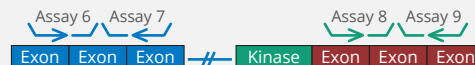
Assays by Agena also offers panels covering additional oncogenes and somatic mutations. Visit www.agenabioscience.com for more information.

ALK, RET & ROS1 FUSION GENE ASSAY SCHEMA

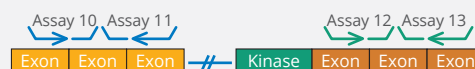
ALK - anaplastic lymphoma receptor tyrosine kinase



RET - ret proto-oncogene



ROS1 - c-ros oncogene 1, receptor tyrosine kinase



For Research Use Only. Not for use in diagnostic procedures.

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51-20013R3.0 0316



THE MASSARRAY WORKFLOW

RNA is extracted from each sample and subjected to reverse transcription followed by PCR amplification and primer extension. The extension products are dispensed onto a SpectroCHIP® Array and detected via MassARRAY mass spectrometry. After the sample run, an automated software report provides the translocation status for each sample, as well as a confidence score.

THROUGHPUT

The LungFUSION Panel contains multiplexed assays in a single well. The panel can be run in 24-, 96-, or 384-well format (24, 96, or 384 samples per plate).





ORDERING INFORMATION

Choose the best approach for you:

- Order the LungFUSION Panel components and run on your own MassARRAY System.
- Send your samples to our Assays by Agena Custom Services Laboratory and have our experienced scientists run the panel for you.

Please contact Agena Bioscience for more information.

PANEL COMPONENTS

AMPLIFY		PCR Enzyme PCR Accessory Set LungFUSION™ PCR Primers
EXTEND		iPLEX® Pro Reagent Set LungFUSION Extend Primers
DETECT		SpectroCHIP® Array and Clean Resin
ANALYZE		MassARRAY® Analysis Software

DATA ANALYSIS

The LungFUSION Panel report, supported by MassARRAY Typer software, provides a summary view and a sample report. The sample report (Figure 1) enables quick determination as to whether the sample has passed QC (RNA quality, DNA contamination) and whether there was a translocation observed.

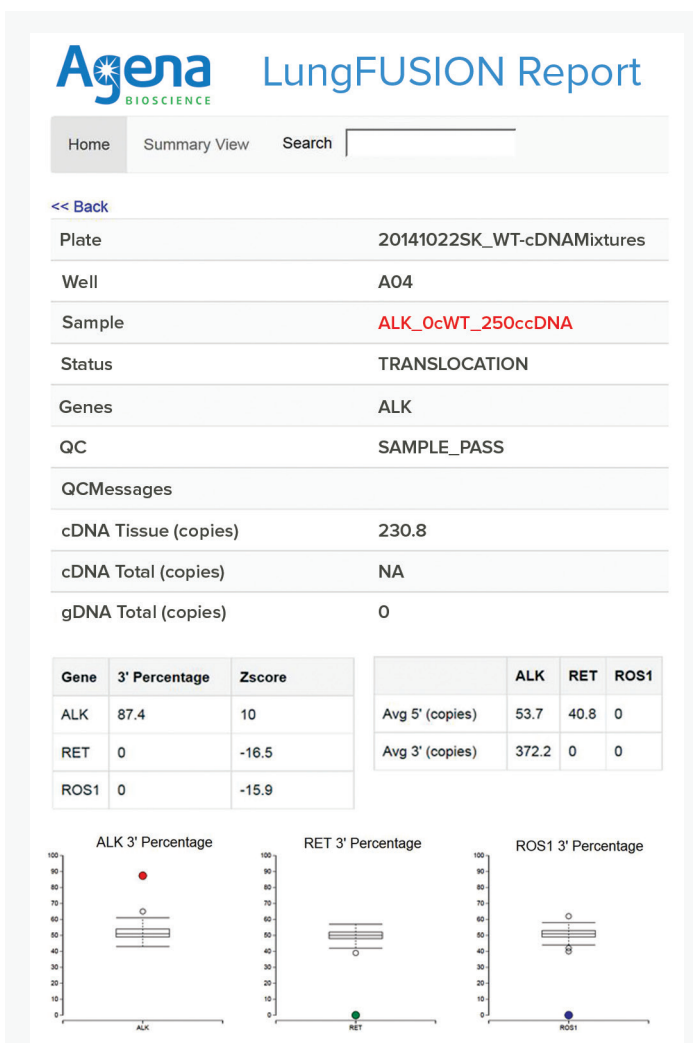


Figure 1. LungFUSION Sample Report

The LungFUSION Panel Sample Report shows the sample (colored dot) against a box plot of baseline data, with the y-axis indicating the percentage of 3' expression. This example shows the presence of an *ALK* translocation.

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