

TRUPCR® ALK Fusion Detection Kit

NEED

Anaplastic lymphoma kinase (ALK) also known as ALK tyrosine kinase receptor or CD246 is an enzyme that in humans is encoded by the ALK gene. The ALK gene is located on the short arm of chromosome 2 (2p23) belongs to the insulin receptor superfamily, and encodes for the ALK protein, ALK plays an important role in the development of the brain and exerts its effects on specific neurons in the nervous system. Rearrangement of ALK gene and another gene, within chromosome 2 (translocation) have been implicated in for non-small-cell lung cancer (NSCLC). The EML4-ALK fusion gene is responsible for approximately 3-5% of non-small cell lung cancer (NSCLC).

The treatment of non-small-cell lung cancer (ALK fusions) has been revolutionized due to development of molecularly targeted therapy in genomically defined subsets of patients and drugs like Crizotinib, alectinib & ceritinib.

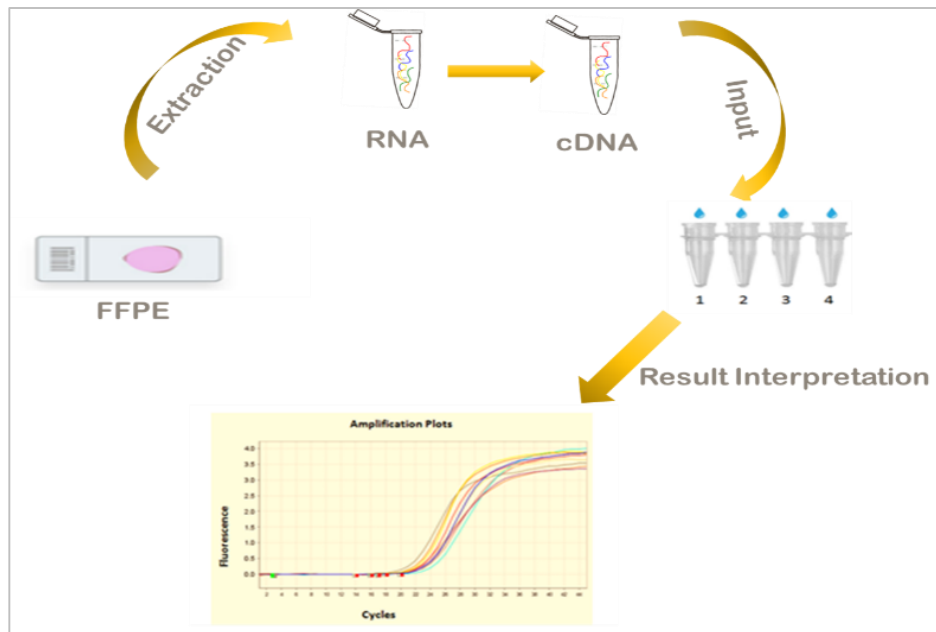
SOLUTION BY TRUPCR®

The TRUPCR® ALK Fusion Detection Kit is intended for the qualitative detection of EML4-ALK fusions in human NSCLC formalin-fixed paraffin-embedded (FFPE) tissue samples using real time PCR system. The human ABL1 gene that serves as an internal positive control for human nucleic acid is also included in this kit.

The kit can detect 29 different gene fusions in a single run that are found in Exon A19 & A20.

The kit contains primers and probes for the detection of the all target (FAM) as well as endogenous control gene as internal control (Texas Red). Internal control is included to verify the extraction procedure and also the possible presence of inhibitors, which may cause false negative results.

TEST PROCEDURE



PRODUCT HIGHLIGHTS:

- Detects 29 clinically relevant ALK gene fusions in a single run
- Sensitive to detect up to 10 copies transcript / reaction

TECHNICAL SPECIFICATIONS

- Endogenous Internal control included to avoid false-negative results
- Compatible Instruments – Applied Biosystems™ 7500 series, Applied Biosystems™ StepOne series, Applied Biosystems™ QuantStudio® series, Rotor-Gene Q, Bio-Rad CFX96, CFX384, AriaMx Real-Time PCR, Roche - LightCycler® 480 –II, Line gene K Real-Time PCR

LIST OF DETECTABLE GENE FUSIONS

Spliced Gene & Exon	Remarks
E6ins33;A20;	It detects 8 gene fusions but does not distinguish between them.
E20;A20	
E6;A19	
E6;A20	
E13;A20	
E6;ins18A20	
E13;ins69A20	
E20;ins18A20	
E14ins11;del49A20	It detects 5 gene fusions but does not distinguish between them.
E14;del14A20	
KI15;A20	
E15del60;del71A20	
E14;del38A20	
E2;A20	It detects 11 gene fusions but does not distinguish between them
E2;ins117A20	
E3;ins53A20	
E17ins61;ins34A20	
E17del58;ins39A20	
E17;ins68A20	
E18;A20	
E17ins30;A20	
E17ins65;A20	
E18;A20	
E17;A20	
KI17;A20	It detects 5 gene fusions but does not distinguish between them
KI24;A20	
T4;A20	
KL9;A20	
E10del54E13;A20	

ORDERING INFORMATION

Cat. No.	Description	Size
3B1343	TRUPCR® ALK Fusion Detection Kit	24 Reactions
3B1344	TRUPCR® ALK Fusion Detection Kit	48 Reactions

