

TRUPCR® BRAF Mutations Detection Kit

NEED

Somatic mutations in BRAF gene have been found in cancers, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, papillary thyroid carcinoma, non-small cell lung carcinoma, and adenocarcinoma of lung. The most common mutations in BRAF occur in codon 600, where an amino acid substitution in the activation segment of the kinase domain creates a constitutively active form of the protein. BRAF mutations are generally found in tumors that are wild-type for KRAS, NRAS, and EGFR. BRAF mutations occur in ~50% of melanoma tumors, ~40% of papillary thyroid tumors, ~30% of ovarian tumors, ~10% of colorectal tumors and ~10% of prostate tumors.

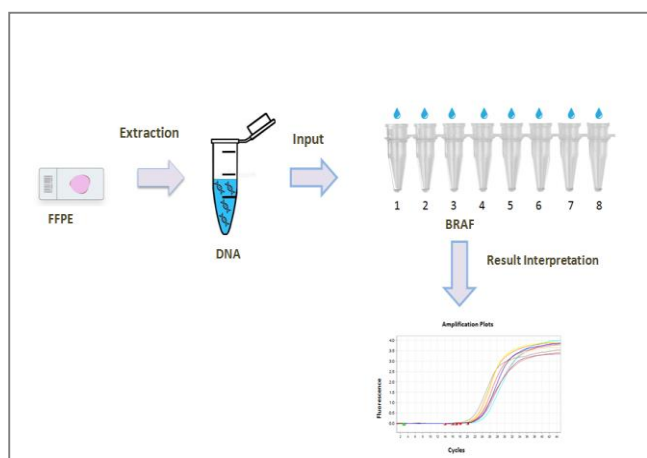
BRAF (V600) mutation variants are considered as therapeutic biomarkers for drugs such as dabrafenib, trametinib, encorafenib, cobimetinib, vemurafenib & atezolizumab for the treatment of various types of cancer.

SOLUTION BY TRUPCR®

The TRUPCR® BRAF Mutations Detection Kit is intended for the qualitative detection of BRAF somatic mutations in the genomic DNA extracted from fresh, frozen or formalin fixed paraffin-embedded (FFPE) tissue using Real Time PCR. The kit is based on allele specific amplification and is achieved by ARMS PCR.

The TRUPCR® BRAF Mutations Detection Kit is composed of 7 assays for the detection of the BRAF mutations and a reference control gene of BRAF region without any known polymorphism/mutation. The kit contains primers and probes for the detection of the all target (FAM) as well as endogenous control gene as internal control (VIC/HEX). Internal control is included to verify the extraction procedure and also the possible presence of inhibitors, which may cause false negative results.

TEST PROCEDURE



LIST OF DETECTABLE MUTATIONS

Tube no.	Mutation	Nucleotide Change	Cosmic ID
Tube 1	V600E	c.1799T>A	COSM476
Tube 2	V600E Complex	c.1799_1800TG>AA	COSM475
Tube 3	V600D	1799_1800TG>AT	COSM477
Tube 4	V600G	c.1799T>G	COSM6137
Tube 5	V600K	c.1798_1799GT>AA	COSM473
Tube 6	V600M	BRAF c.1798G>A	COSM1130
Tube 7	V600R	c.1798_1799GT>AG	COSM474

PRODUCT HIGHLIGHTS:

- Detects and differentiate 7 mutations in a single run
- Sensitive to detect up to 1%- 5% mutation in BRAF gene

TECHNICAL SPECIFICATIONS

- Selective Amplification of DNA containing mutation with ARMS Technology
- Reaction Time – 90 Minutes after PCR Start
- 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

ORDERING INFORMATION

Cat. No.	Description	Size
3B1287	TRUPCR® BRAF Mutations Detection Kit	24 Reactions
3B1288	TRUPCR® BRAF Mutations Detection Kit	48 Reactions

