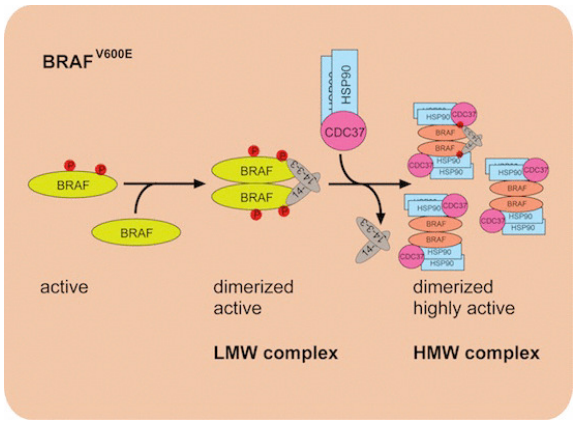
TRUPCR® BRAF Mutation Kit



The TRUPCR® BRAF Mutation Kit is an *in vitro* diagnostic test intended for the qualitative detection of BRAF somatic mutations in the genomic DNA extracted from fresh, frozen or formalin fixed paraffin-embedded (FFPE) tissue. The TRUPCR BRAF mutation kit is based on allele specific amplification and is achieved by ARMS PCR. Taq DNA polymerase is extremely effective at distinguishing between a match and a mismatch at the 3'-end of a PCR primer. The kit is designed to selectively amplify mutant specific sequences in samples that contain a mixture of wild-type and mutated DNA. The most common mutations are found in codon 600. The detection is achieved using fluorescent probes labelled with FAM and HEX. The TRUPCR BRAF 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.

Key features:

- Selective Amplification of DNA containing mutation with ARMS Technology
- Sensitive to detect up to 1% mutation in BRAF gene
- Detects 7 different mutations in a single run
- Extraction control included to avoid false-negative results
- Rapid, more reliable, comprehensive and cost effective tests
- Easy work flow & compatible with various Real Time PCR instruments

BRAF Detectable mutations:

	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

The RAS/RAF/MEK/ERK pathway is a critical proliferation pathway in many human cancers. This pathway can be constitutively activated by alterations in specific proteins, including BRAF, which phosphorylates MEK on 2 regulatory serine residues. Over 45 cancer-associated mutations have been identified in BRAF. BRAF mutations have been identified at a high frequency in specific cancers, including approximately 50 to 60% of melanoma, Approximately 90% of all identified BRAF mutations that occur in human cancer are a T1799A transversion mutation in exon 15, which results in a V600E amino acid substitution. This mutation appears to mimic regulatory phosphorylation, locks the BRAF kinase in its active status, and increases BRAF activity approximately 10-fold compared to wild type (2). T1799A alteration (V600E mutation) accounts for 70 to 90% of BRAF mutant melanoma patients. In addition, the T1799A alteration could be associated with a second nucleotide mutation (G1798A) and leads to a V600K mutation in an additional ~6% to 29% of patients with a BRAF mutation

Ordering information:

Cat. No.	Product	Contents
3B1287	TRUPCR® BRAF Mutation Kit	48Rxn
3B1288	TRUPCR® BRAF Mutation Kit	96Rxn

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