

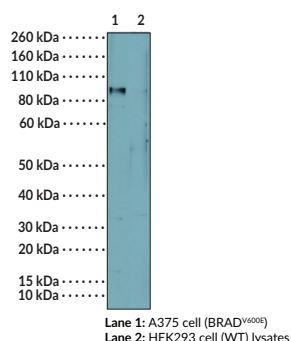
PRODUCT INFORMATION

B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) Item No. 42863

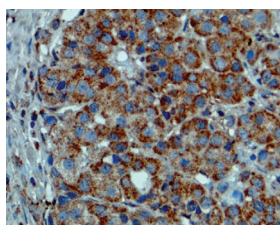
Overview and Properties

Contents:	This vial contains 50 or 100 µg of protein A-affinity purified monoclonal antibody.
Synonyms:	B-RAF Proto-oncogene, Proto-oncogene B-RAF ^{V600E} , RAFB1, V-Raf Murine Sarcoma Viral Oncogene Homolog B
Immunogen:	Peptide corresponding to B-RAF ^{V600E}
Cross Reactivity:	(+) B-RAF ^{V600E} , (-) Wild-type B-RAF
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1.0 mg/ml
Clone:	RM8
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Immunocytochemistry (ICC), Immunohistochemistry (IHC), Western blot (WB) (non-reducing conditions); the recommended starting concentrations are 0.5 µg/ml-2 µg/ml for ELISA and WB and 0.5 µg/ml-5 µg/ml for ICC and IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

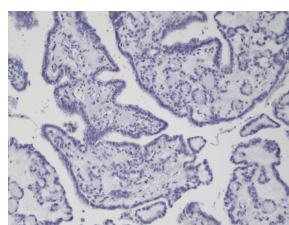
Images



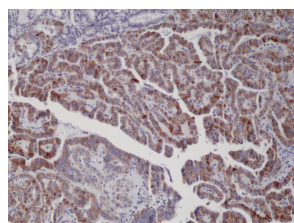
WB of B-RAF^{V600E} and HEK293 cell lysates using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) at a concentration of 2 µg/ml.



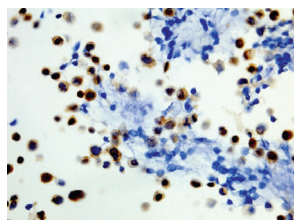
Immunohistochemical staining of formalin-fixed and paraffin-embedded melanoma tissue sections using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) at a concentration of 2 µg/ml.



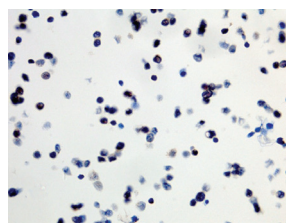
Immunohistochemical staining of formalin-fixed and paraffin-embedded thyroid carcinoma tissue sections using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) at a concentration of 0.5 µg/ml. Allele specific PCR validated to be positive for BRAF^{V600E}.



Immunohistochemical staining of formalin-fixed and paraffin-embedded thyroid carcinoma tissue sections using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) at a concentration of 0.5 µg/ml. Allele specific PCR validated to be positive for BRAF^{V600E}.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human cell line sections using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) (400X, positive).



Immunohistochemical staining of formalin-fixed and paraffin-embedded human cell line sections using B-RAF^{V600E} Rabbit Monoclonal Antibody Biotinylated (Clone RM8) (400X, negative).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/05/2025

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Rapidly accelerated fibrosarcoma (Raf) kinase is a serine/threonine kinase and component of the MAPK/ERK signaling pathway.^{1,2} Upon activation by upstream RAS signaling, Raf dimerizes and phosphorylates MEK1 leading to activation of transcription factors for cell growth, proliferation, and survival.² Raf exists as three isoforms, A-RAF, B-RAF, and C-RAF, which all consist of three conserved regions (CRs) with domain-specific functions.¹ CR1 contains a cysteine-rich domain and a RAS-binding domain, CR2 is essential for negative regulation through inhibition of phosphorylation sites, and CR3 is the kinase domain. B-RAF is the most prominent isoform, expressed in most tissues, and localized to the cytosol. A single amino acid substitution of glutamic acid for valine at codon 600 in the kinase domain (B-RAF^{V600E}) is an activating mutation that is found in melanoma and non-small cell lung cancer (NSCLC), as well as breast, thyroid, colorectal, and ovarian cancers.^{1,2} B-RAF^{V600E} is associated with early-stage ovarian cancer, as well as with increased risk of brain metastasis and shorter survival in melanoma.^{1,3} Cayman's B-RAF^{V600E} Monoclonal Antibody Biotinylated (Clone RM8) can be used for ELISA, immunocytochemistry (ICC), immunohistochemistry (IHC), and Western blot (WB) applications.

References

1. Chavda, J. and Bhatt, H. Systemic review on B-Raf^{V600E} mutation as potential therapeutic target for the treatment of cancer. *Eur. J. Med. Chem.* **206**, 112675 (2020).
2. Frisone, D., Friedlaender, A., Malapelle, U., *et al.* A BRAF new world. *Crit. Rev. Oncol. Hematol.* **152**, 103008 (2020).
3. Patel, H., Yacoub, N., Mishra, R., *et al.* Current advances in the treatment of BRAF-mutant melanoma. *Cancers (Basel)* **12(2)**, 482 (2020).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM