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B-raf Antibody

Catalog # ASC11664

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P15056
Other Accession	P15056, 50403720
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	84437
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	B-raf antibody can be used for detection of B-raf by Western blot at 1 and 2 g/mL.

Additional Information

Gene ID	673
Other Names	Serine/threonine-protein kinase B-raf, 2.7.11.1, Proto-oncogene B-Raf, p94, v-Raf murine sarcoma viral oncogene homolog B1, BRAF, BRAF1, RAFB1
Target/Specificity	BRAF; At least two isoforms of B-raf are known to exist; this antibody will detect both isoforms. This antibody will not cross-react with C-raf.
Reconstitution & Storage	B-raf antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	B-raf Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BRAF (HGNC:1097)
Synonyms	BRAF1, RAFB1
Function	Protein kinase involved in the transduction of mitogenic signals from the cell membrane to the nucleus (Probable). Phosphorylates MAP2K1, and thereby activates the MAP kinase signal transduction pathway (PubMed:21441910, PubMed:29433126). Phosphorylates PFKFB2 (PubMed:36402789). May play a role in the postsynaptic responses of hippocampal neurons (PubMed:1508179).
Cellular Location	Nucleus. Cytoplasm. Cell membrane. Note=Colocalizes with RGS14 and RAF1 in both the cytoplasm and membranes.

Tissue Location Brain and testis.

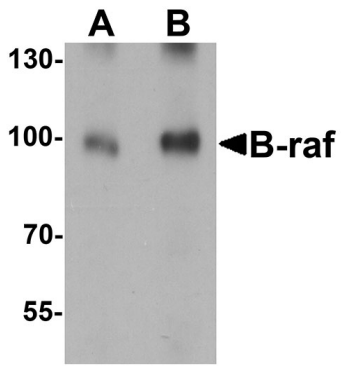
Background

B-raf Antibody: B-raf belongs to the raf/mil family of serine/threonine protein kinases and plays a role in regulating the MAP kinase/ERKs signaling pathway, which affects cell division, differentiation, and secretion. The Ras/Raf/MEK/ERK and Ras/PI3K/PTEN/Akt pathways interact with each other to regulate growth and in some cases tumorigenesis. Mutations in B-raf have been associated with several cancers, including non-Hodgkin lymphoma, colorectal cancer, malignant melanoma, thyroid carcinoma, non-small cell lung carcinoma, and adenocarcinoma of lung, leading to speculation on the possibility of B-raf as a therapeutic target for treating cancers. Mutations in this gene have also been associated with cardiofaciocutaneous syndrome (CFCS), a disease characterized by heart defects, mental retardation and a distinctive facial appearance.

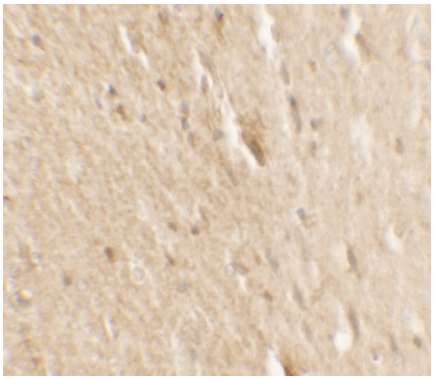
References

McCubrey JA, Steelman LS, Chappell WH, et al. Roles of the RAF/MEK/ERK pathway in cell growth, malignant transformation and drug resistance. Biochim. Biophys. Acta 2007; 1773:1263-84.
Madhunapantula SV and Robertson GP. Is B-raf a good therapeutic target for melanoma and other malignancies? Cancer Res. 2008; 68:5-8.
Sarkozy A, Carta C, Moretti S, et al. Germline BRAF mutations in Noonan, LEOPARD, and cardiofaciocutaneous syndromes: molecular diversity and associated phenotypic spectrum. Hum. Mutat. 2009; 30:695-702.

Images

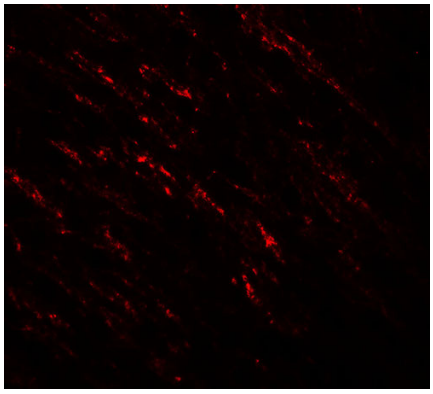


Western blot analysis of B-raf in human brain tissue lysate with B-raf antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of B-raf in human small intestine tissue with B-raf antibody at 2.5 µg/ml.

Immunofluorescence of B-raf in human small intestine tissue with B-raf antibody at 20 µg/ml.



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