10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BRAF Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1086a

Specification

BRAF Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P15056
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

Description
BRAF(V-raf murine sarcoma viral oncogene homolog B1) is the main effectors recruited by GTP-bound Ras to activate the MEK-MAP kinase pathway. B-Raf contains three consensus Akt phosphorylationsites (Ser364, Ser428, and Thr439).B-Raf is a key regulatory molecule of the mitogen-activated protein kinase kinase (MEK),it has a long amino-terminal region,the region is essential for homo-dimerization of B-Raf and hetero-dimerization of B-Raf and c-Raf at the plasma membrane, followed by phosphorylation of Thr118 in the amino-terminal B-Raf-specific region. Notably, in calcium ionophore-stimulated HeLa cells, B-Raf could propagate signals to MEK under the basal level of GTP-Ras. Expression of Raf-B is highly restricted with highestlevels in the cerebrum and testes and defects in braf are involved in a wide range of cancers.The BRAF gene mutation is frequently detected in papillary thyroid carcinoma,melanocytic nevi,primary cutaneous melanomas and colorectal cancers.

Immunogen
Purified recombinant fragment of BRAF expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

BRAF Antibody - 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

Dilution
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
IF~~1:200~1000.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

BRAF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

BRAF Antibody - 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.

BRAF Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BRAF Antibody - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

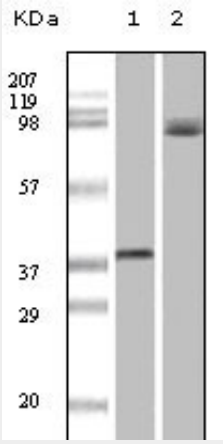

Figure 1: Western blot analysis using BRAF mouse mAb against truncated recombinant Braf (1) and A431 cell lysate (2).

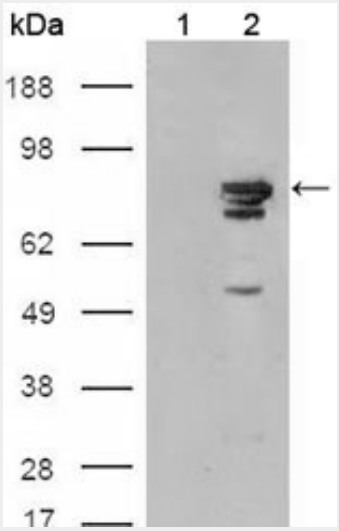

Figure 2: Western blot analysis using BRAF mouse mAb against HEK293T cells transfected with the pCMV6-ENTRY control (1) and pCMV6-ENTRY Braf cDNA (2).

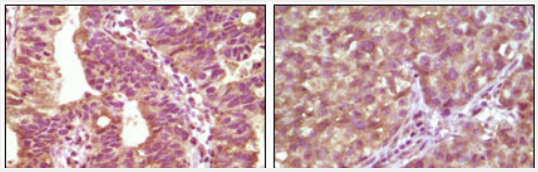

Figure 3: Immunohistochemical analysis of paraffin-embedded human bladder carcinoma tissue(left) and lung carcinoma tissue (right) showing cytoplasmic localization using BRAF mouse mAb with DAB staining.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

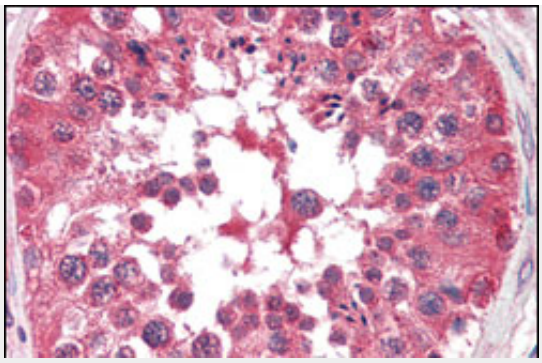

Figure 4: Immunohistochemical analysis of paraffin-embedded human testis tissues using BRAF mouse mAb.

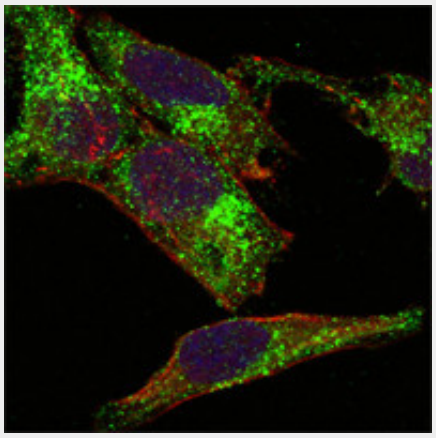

Figure 3: Confocal immunofluorescence analysis of Hela cells using anti-INHA mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

BRAF Antibody - References

1. Rapp, U.R.,et al.1983.Proc. Natl.Acad.Sci.USA.80:4218-4222. 2. Kim J,Giuliano AE,Turner RR.2006.Ann Surg.Nov, 244(5): 799-804. 3. Fullen DR, Poynter JN, Lowe L,2006.Mod Pathol. 19(10): 1324-1332. 4. Terai K, Matsuda M.2006.MBO J.25(15):3556-3564. 5. Noda H,Kato Y,Yoshikawa H,2006.J Exp Clin Cancer Res. 25(2):235-242.