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B-RAF Antibody (S445)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7810f

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	P15056
Other Accession	P28028, Q04982
Reactivity	Human, Mouse
Predicted	Chicken, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB10940,RB17180
Calculated MW	84437
Antigen Region	424-453

Additional Information

Gene ID	673
Other Names	Serine/threonine-protein kinase B-raf, Proto-oncogene B-Raf, p94, v-Raf murine sarcoma viral oncogene homolog B1, BRAF, BRAF1, RAFB1
Target/Specificity	This B-RAF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 424-453 amino acids from human B-RAF.
Dilution	WB~~1:2000 IHC-P~~1:100~500 IF~~1:25 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	B-RAF Antibody (S445) 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.

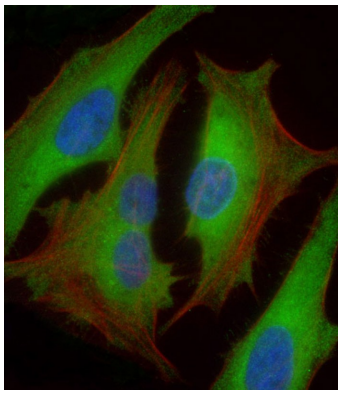
Background

BRAF, a member of the RAF subfamily of Ser/Thr protein kinases, is involved in the transduction of mitogenic signals from the cell membrane to the nucleus. It may play a role in the postsynaptic responses of hippocampal neurons. This cytoplasmic protein is expressed in brain and testis. Defects in BRAF are involved in a wide range of cancers including lung cancer and non-Hodgkin lymphoma (NHL). This protein contains 1 zinc-dependent phorbol-ester and DAG binding domain.

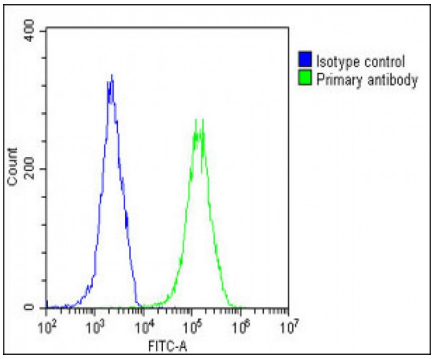
References

Hingorani, S.R., et al., Cancer Res. 63(17):5198-5202 (2003).
Lee, J.W., et al., Br. J. Cancer 89(10):1958-1960 (2003).
Davies, H., et al., Nature 417(6892):949-954 (2002).
Naoki, K., et al., Cancer Res. 62(23):7001-7003 (2002).
Stephens, R.M., et al., Mol. Cell. Biol. 12(9):3733-3742 (1992).

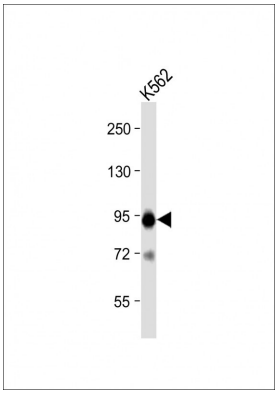
Images



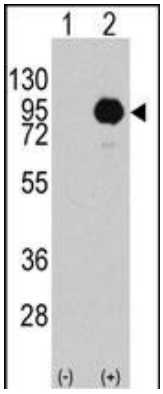
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling B-RAF with AP7810f at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm and nucleus staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



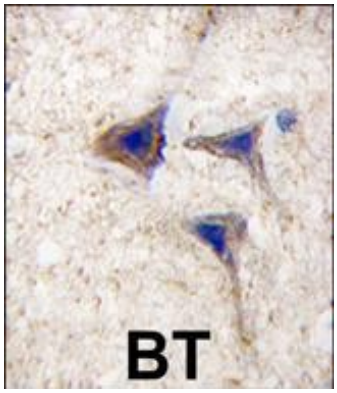
Overlay histogram showing HeLa cells stained with AP7810f(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP7810f, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



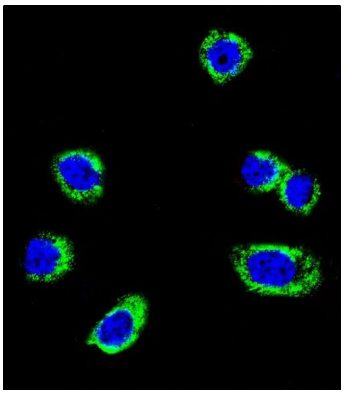
Anti-B-RAF Antibody (S445) at 1:2000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 84 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of BRAF (arrow) using rabbit polyclonal BRAF Antibody (S445) (RB10940). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the BRAF gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human brain tissue reacted with BRAF Antibody (S445), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of B-RAF Antibody (S445)(Cat#AP7810f) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).