B-RAF monoclonal antibody

Catalog: MB66889 Host: Mouse Reactivity: Human

BackGround:

A-Raf, B-Raf, and c-Raf are the main effectors recruited by GTP-bound Ras to activate the MEK-MAP kinase pathway . Activation of c-Raf is the best understood and involves phosphorylation at multiple activating sites, including Ser338, Tyr341, Thr491, Ser494, Ser497, and Ser499 . p21-activated kinase (PAK) has been shown to phosphorylate c-Raf at Ser338, and the Src family phosphorylates Tyr341 to induce c-Raf activity. Ser338 of c-Raf corresponds to similar sites in A-Raf and B-Raf , although this site is constitutively phosphorylated in B-Raf . Inhibitory 14-3-3 binding sites on c-Raf can be phosphorylated by Akt and AMPK, respectively . While A-Raf, B-Raf, and c-Raf are similar in sequence and function, differential regulation has been observed. Of particular interest, B-Raf contains three consensus Akt phosphorylation sites and lacks a site equivalent to Tyr341 of c-Raf . Research studies have shown that the B-Raf mutation V600E results in elevated kinase activity and is commonly found in malignant melanoma . Six residues of c-Raf become hyperphosphorylated in a manner consistent with c-Raf inactivation. The hyperphosphorylation of these six sites is dependent on downstream MEK signaling and renders c-Raf unresponsive to subsequent activation events .

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 86 kDa

Swiss-Prot:

P15056

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000), IF/ICC (1/10 - 1/50)

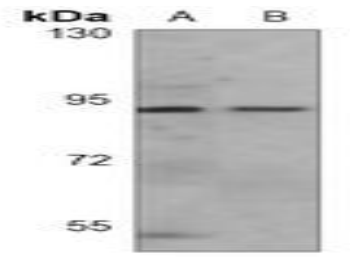
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

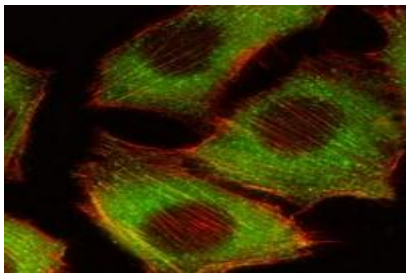
Specificity:

Recognizes endogenous levels of B-RAF protein.

DATA:



Western blot analysis of B-RAF expression in MCF7 (A), K562 (B) whole cell lysates.



Immunofluorescent analysis of B-RAF staining in C2C12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 ℃ in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF555 was used to stain the cytoplasm (red). DAPI was used to stain the cell nuclei (blue).

Note:

For research use only, not for use in diagnostic procedure.

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