

Raf-B (13): sc-136263

BACKGROUND

Several serine/threonine protein kinases have been implicated as intermediates in signal transduction pathways. These include ERK/MAP kinases, ribosomal S6 kinase (Rsk) and Raf-1. Raf-1 is a cytoplasmic protein with intrinsic serine/threonine activity. It is broadly expressed in nearly all cell lines tested to date and is the cellular homolog of v-Raf, the product of the transforming gene of the 3,611 strain of murine sarcoma virus. The unregulated kinase activity of the v-Raf protein has been associated with transformation and mitogenesis, while the activity of Raf-1 is normally suppressed by a regulatory N-terminal domain. Raf-A, a second member of the Raf gene family of serine/threonine protein kinases, exhibits substantial homology to Raf-1 within the kinase domain of the two molecules, but less homology elsewhere. Expression of Raf-B is highly restricted, with highest levels in the cerebrum and testis.

REFERENCES

1. Rapp, U.R., et al. 1983. Structure and biological activation of v-Raf, a unique oncogene transduced by a retrovirus. *Proc. Natl. Acad. Sci. USA* 80: 4218-4222.
2. Huleihel, M., et al. 1986. Characterization of murine A-Raf, a new oncogene related to the v-Raf oncogene. *Mol. Cell. Biol.* 6: 2655-2662.
3. Sariban, E., et al. 1987. Expression of the c-Raf protooncogene in human hematopoietic cells and cell lines. *Blood* 69: 1437-1440.
4. Ray, L.B., et al. 1988. Insulin-stimulated microtubule-associated protein kinase is phosphorylated on tyrosine and threonine *in vivo*. *Proc. Natl. Acad. Sci. USA* 85: 3753-3757.
5. Morrison, D.K., et al. 1988. Signal transduction from membrane to cytoplasm: growth factors and membrane-bound oncogene products increase Raf-1 phosphorylation and associated protein kinase activity. *Proc. Natl. Acad. Sci. USA* 85: 8855-8859.
6. Pelech, S.L., et al. 1990. Protein kinase cascades in meiotic and mitotic cell cycle control. *Biochem. Cell Biol.* 68: 1297-1330.
7. Heidecker, G., et al. 1990. Mutational activation of c-Raf-1 and definition of the minimal transforming sequence. *Mol. Cell. Biol.* 10: 2503-2512.
8. Storm, S.M., et al. 1990. Expression of Raf family proto-oncogenes in normal mouse tissues. *Oncogene* 5: 345-351.

CHROMOSOMAL LOCATION

Genetic locus: BRAF (human) mapping to 7q34; Braf (mouse) mapping to 6 B1.

SOURCE

Raf-B (13) is a mouse monoclonal antibody raised against amino acids 285-406 of Raf-B of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

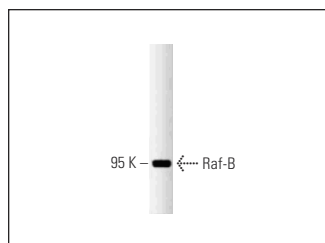
Raf-B (13) is recommended for detection of Raf-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Raf-B siRNA (h): sc-36368, Raf-B siRNA (m): sc-63294, Raf-B siRNA (r): sc-61894, Raf-B shRNA Plasmid (h): sc-36368-SH, Raf-B shRNA Plasmid (m): sc-63294-SH, Raf-B shRNA Plasmid (r): sc-61894-SH, Raf-B shRNA (h) Lentiviral Particles: sc-36368-V, Raf-B shRNA (m) Lentiviral Particles: sc-63294-V and Raf-B shRNA (r) Lentiviral Particles: sc-61894-V.

Molecular Weight of Raf-B isoforms: 62/95 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

DATA



Raf-B (13): sc-136263. Western blot analysis of Raf-B expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Park, G.B., et al. 2017. Sorafenib controls the epithelial-mesenchymal transition of ovarian cancer cells via EGF and the CD44-HA signaling pathway in a cell type-dependent manner. *Mol. Med. Rep.* 16: 1826-1836.
2. Guo, F., et al. 2018. MicroRNA-9-5p functions as a tumor suppressor in papillary thyroid cancer via targeting BRAF. *Oncol. Lett.* 16: 6815-6821.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **Raf-B (F-7): sc-5284** for Raf-B antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.