

Raf-1 (C-10): sc-373722

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 3611 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-1 is activated in response to activation of a variety of tyrosine kinase receptors as well as in response to pp60^{v-Src} expression. There is accumulating evidence that Ras p21 may play a role in activation of Raf-1 and may play the role of the messenger from membrane tyrosine kinases to Raf-1.

CHROMOSOMAL LOCATION

Genetic locus: RAF1 (human) mapping to 3p25.2; Raf1 (mouse) mapping to 6 E3.

SOURCE

Raf-1 (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 621-655 near the C-terminus of Raf-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-373722 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Raf-1 (C-10) is recommended for detection of Raf-1 p74 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Raf-1 (C-10) is also recommended for detection of Raf-1 p74 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Raf-1 siRNA (h): sc-29462, Raf-1 siRNA (m): sc-29463, Raf-1 shRNA Plasmid (h): sc-29462-SH, Raf-1 shRNA Plasmid (m): sc-29463-SH, Raf-1 shRNA (h) Lentiviral Particles: sc-29462-V and Raf-1 shRNA (m) Lentiviral Particles: sc-29463-V.

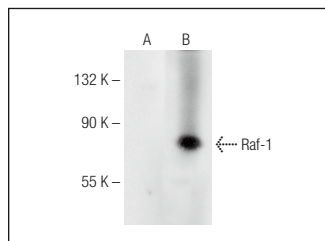
Molecular Weight of Raf-1: 80 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215, CCD-1064Sk cell lysate: sc-2263 or Raf-1 (m): 293T Lysate: sc-122942.

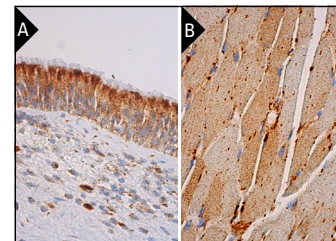
STORAGE

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

DATA



Raf-1 (C-10): sc-373722. Western blot analysis of Raf-1 expression in non-transfected: sc-117752 (A) and mouse Raf-1 transfected: sc-122942 (B) 293T whole cell lysates.



Raf-1 (C-10): sc-373722. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic staining of respiratory epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (B).

SELECT PRODUCT CITATIONS

- Reuter, C.W., et al. 1995. Biochemical analysis of MEK activation in NIH3T3 fibroblasts. *J. Biol. Chem.* 270: 7644-7655.
- El-Chaar, N.N., et al. 2014. Genomic classification of the Ras network identifies a personalized treatment strategy for lung cancer. *Mol. Oncol.* 8: 1339-1354.
- Li, Y., et al. 2017. MMP-2 and MMP-13 affect vasculogenic mimicry formation in large cell lung cancer. *J. Cell. Mol. Med.* 21: 3741-3751.
- Lim, K.T., et al. 2018. Correction to: nongenomic oestrogen signalling in oestrogen receptor negative breast cancer cells: a role for the Angiotensin II receptor AT1. *Breast Cancer Res.* 20: 61.
- Cheng, D., et al. 2019. miR-142-5p suppresses proliferation and promotes apoptosis of human osteosarcoma cell line, HOS, by targeting PLA2G16 through the ERK1/2 signaling pathway. *Oncol. Lett.* 17: 1363-1371.
- Dai, C., et al. 2020. Lactate dehydrogenase A governs cardiac hypertrophic growth in response to hemodynamic stress. *Cell Rep.* 32: 108087.

RESEARCH USE

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

PROTOCOLS

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



See **Raf-1 (E-10): sc-7267** for Raf-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.