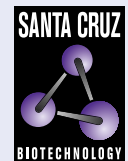


Raf-1 (E-10): sc-7267



The Power to Question

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 pp60v-Src expression. There is accumulating evidence that Ras p21 may play a role in activation of Raf-1 and may even play the role of the messenger from membrane tyrosine kinases to Raf-1.

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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Raf-1 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 625-648 at 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.

Raf-1 (E-10) is available conjugated to agarose (sc-7267 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7267 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7267 PE), fluorescein (sc-7267 FITC), Alexa Fluor® 488 (sc-7267 AF488), Alexa Fluor® 546 (sc-7267 AF546), Alexa Fluor® 594 (sc-7267 AF594) or Alexa Fluor® 647 (sc-7267 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7267 AF680) or Alexa Fluor® 790 (sc-7267 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-7267 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Raf-1 (E-10) is recommended for detection of Raf-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

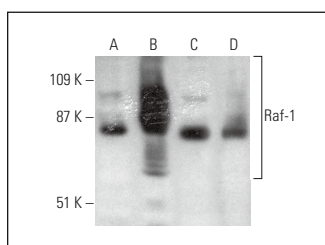
Raf-1 (E-10) is also recommended for detection of Raf-1 in additional species, including equine, canine and bovine.

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.

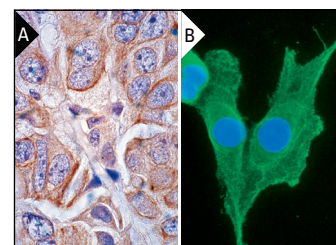
Molecular Weight of Raf-1: 80 kDa.

Positive Controls: F9 cell lysate: sc-2245, 3611-RF whole cell lysate: sc-2215 or KNRK whole cell lysate: sc-2214.

DATA



Raf-1 (E-10) HRP: sc-7267 HRP. Direct western blot analysis of Raf-1 expression in F9 (A), 3611-RF (B), KNRK (C) and NIH/3T3 (D) whole cell lysates.



Raf-1 (E-10): sc-7267. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic and membrane staining (A). Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic and membrane staining (B).

SELECT PRODUCT CITATIONS

1. Sinibaldi, D., et al. 2000. Induction of p21^{WAF1/CIP1} and cyclin D1 expression by the Src oncoprotein in mouse fibroblasts: role of activated Stat3 signaling. *Oncogene* 19: 5419-5427.
2. Park, S., et al. 2017. Proteasome inhibitor-induced cleavage of HSP90 is mediated by ROS generation and caspase 10-activation in human leukemic cells. *Redox Biol.* 13: 470-476.
3. Eid, R.A., et al. 2018. Ghrelin prevents cardiac cell apoptosis during cardiac remodelling post experimentally induced myocardial infarction in rats via activation of Raf-MEK1/2-ERK1/2 signalling. *Arch. Physiol. Biochem.* 15: 1-11.

RESEARCH USE

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

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