SANTA CRUZ BIOTECHNOLOGY, INC.

Raf-1 (C-12): sc-133

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-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.

CHROMOSOMAL LOCATION

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

SOURCE

Raf-1 (C-12) is available as either rabbit (sc-133) or goat (sc-133-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Raf-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose (sc-133 AC) conjugate for immunoprecipitation, 500 µg/0.25 ml agarose in 1 ml; as HRP conjugate for Western blotting, sc-133 HRP, 200 µg/ml; as fluorescein (sc-133 FITC) or rhodamine (sc-133 TRITC) conjugates for use in immunofluorescence, 200 µg/ml; and as Alexa Fluor® 405 (sc-133 AF405), Alexa Fluor® 488 (sc-133 AF488) or Alexa Fluor® 647 (sc-133 AF647) conjugates for immunofluorescence; 100 µg/2 ml.

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APPLICATIONS

Raf-1 (C-12) is recommended for detection of Raf-1 p74 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), kinase assay and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Raf-1 (C-12) is also recommended for detection of Raf-1 p74 in additional species, including equine, canine and bovine.

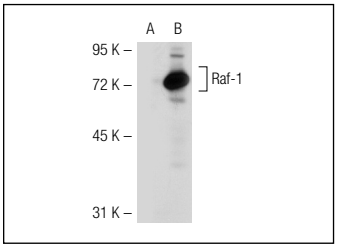
Suitable for use as control antibody for Raf-1 siRNA (h): sc-29462, Raf-1 siRNA (m): sc-29463, Raf-1 shRNA Plasmid (h): sc-29462-SH, Raf-1 shRNA Plasmid (m): sc-29463-SH, Raf-1 shRNA (h) Lentiviral Particles: sc-29462-V and Raf-1 shRNA (m) Lentiviral Particles: sc-29463-V.

Molecular Weight of Raf-1: 80 kDa.

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-12): sc-133. 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.

SELECT PRODUCT CITATIONS

1. Vossler, M.R., et al. 1997. cAMP activates MAP kinase and Elk-1 through a B-Raf- and Rap 1-dependent pathway. Cell 89: 73-82.
2. Boussiotis, V.A., et al. 1997. Maintenance of human T cell anergy: blocking of IL-2 gene transcription by activated Rap 1. Science 278: 124-128.
3. Di Costanzo, A., et al. 2011. A dominant mutation etiologic for human tricho-dento-osseous syndrome impairs the ability of DLX3 to downregulate δNp63α. J. Cell. Physiol. 226: 2189-2197.
4. Goettel, J.A., et al. 2011. KSR1 is a functional protein kinase capable of serine autophosphorylation and direct phosphorylation of MEK1. Exp. Cell Res. 317: 452-463.
5. Tang, C.H., et al. 2011. IL-6 increases MMP-13 expression and motility in human chondrosarcoma cells. J. Biol. Chem. 286: 11056-11066.
6. Chinn, D.C., et al. 2012. Anti-tumor activity of the HSP90 inhibitor SNX-2112 in pediatric cancer cell lines. Pediatr. Blood Cancer 58: 885-890.
7. Kienzle, C., et al. 2012. PKD controls mitotic Golgi complex fragmentation through a Raf-MEK1 pathway. Mol. Biol. Cell 24: 222-233.
8. Kaplan, FM., et al. 2012. SHOC2 and CRAF mediate ERK1/2 reactivation in mutant NRAS-mediated resistance to RAF inhibitor. J. Biol. Chem. 287: 41797-41807.

RESEARCH USE

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