

A-Raf (1): sc-135820

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. A-Raf, 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 A-Raf is found at highest levels in urogenital tissues and kidney and at lowest level in brain tissue.

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. Turner, B., et al. 1991. Interleukin 2 induces tyrosine phosphorylation and activation of p72-74 Raf-1 kinase in a T cell line. *Proc. Natl. Acad. Sci. USA* 88: 1227-1231.

CHROMOSOMAL LOCATION

Genetic locus: ARAF (human) mapping to Xp11.23; Araf (mouse) mapping to X A1.3.

SOURCE

A-Raf (1) is a mouse monoclonal antibody raised against amino acids 183-199 of A-Raf of mouse origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

APPLICATIONS

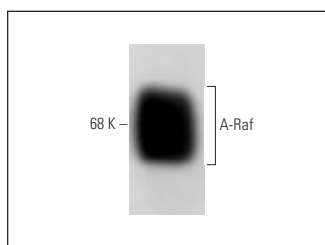
A-Raf (1) is recommended for detection of A-Raf of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

Suitable for use as control antibody for A-Raf siRNA (h): sc-29615, A-Raf siRNA (m): sc-29616, A-Raf shRNA Plasmid (h): sc-29615-SH, A-Raf shRNA Plasmid (m): sc-29616-SH, A-Raf shRNA (h) Lentiviral Particles: sc-29615-V and A-Raf shRNA (m) Lentiviral Particles: sc-29616-V.

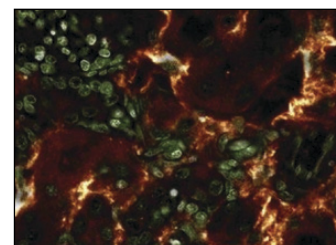
Molecular Weight of A-Raf: 68 kDa.

Positive Controls: SK-N whole cell lysate, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

DATA



A-Raf (1): sc-135820. Western blot analysis of A-Raf expression in SK-N whole cell lysate.



A-Raf (1): sc-135820. Immunofluorescence staining of rabbit kidney cells.

SELECT PRODUCT CITATIONS

1. Siljamäki, E. and Abankwa, D. 2016. SPRED1 interferes with K-ras but not H-ras membrane anchorage and signaling. *Mol. Cell. Biol.* 36: 2612-2625.

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.