

p-Raf-B (Thr 598/Ser 601): sc-28006

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-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 testes.

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.

CHROMOSOMAL LOCATION

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

SOURCE

p-Raf-B (Thr 598/Ser 601) is available as either goat (sc-28006) or rabbit (sc-28006-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Thr 598 and Ser 601 phosphorylated Raf-B of human origin.

PRODUCT

Each vial contains either 100 µg (sc-28006) or 200 µg (sc-28006-R) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-28006 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

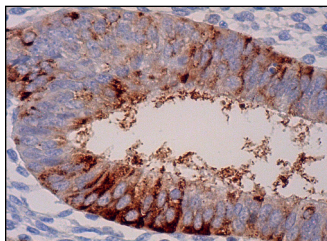
p-Raf-B (Thr 598/Ser 601) is recommended for detection of Thr 598 and Ser 601 dually phosphorylated Raf-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (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).

p-Raf-B (Thr 598/Ser 601) is also recommended for detection of correspondingly dually phosphorylated Raf-B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Raf-B siRNA (h): sc-36368, Raf-B siRNA (m): sc-36369, Raf-B shRNA Plasmid (h): sc-36368-SH, Raf-B siRNA Plasmid (m): sc-36369-SH, Raf-B shRNA (h) Lentiviral Particles: sc-36368-V and Raf-B shRNA (m) Lentiviral Particles: sc-36369-V.

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

DATA



p-Raf-B (Thr 598/Ser 601): sc-28006. Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterus tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Borysova, M.K., et al. 2008. Knockdown of B-Raf impairs spindle formation and the mitotic checkpoint in human somatic cells. *Cell Cycle* 7: 2894-2901.
2. Lissitzky, J.C., et al. 2009. Cyclic AMP signaling as a mediator of vasculogenic mimicry in aggressive human melanoma cells *in vitro*. *Cancer Res.* 69: 802-809.
3. Mikula, M., et al. 2011. Direct recruitment of ERK cascade components to inducible genes is regulated by heterogeneous nuclear ribonucleoprotein (hnRNP) K. *J. Biol. Chem.* 286: 9763-9775.

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.