

STK40 (I-12): sc-160097

BACKGROUND

STK40 (serine/threonine-protein kinase 40), also known as sugen kinase 495, is a 435 amino acid protein kinase that may be a negative regulator of NF κ B and p53-mediated gene expression. Localized to both the cytoplasm and the nucleus, STK40 is ubiquitously expressed. STK40 has a central serine/threonine protein kinase domain and is homologous to TRB-3, a protein that regulates activation of MAP kinases and inhibits NF κ B-mediated gene transcription. Similarly, overexpression of STK40 inhibits NF κ B activation triggered by TNF and also inhibits p53-mediated transcription. There are four named isoforms of STK40 that are produced as a result of alternative splicing.

REFERENCES

- Manning, G., Whyte, D.B., Martinez, R., Hunter, T. and Sudarsanam, S. 2002. The protein kinase complement of the human genome. *Science* 298: 1912-1934.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609437. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Huang, J., Teng, L., Liu, T., Li, L., Chen, D., Li, F., Xu, L.G., Zhai, Z. and Shu, H.B. 2003. Identification of a novel serine/threonine kinase that inhibits TNF-induced NF κ B activation and p53-induced transcription. *Biochem. Biophys. Res. Commun.* 309: 774-778.
- Wu, M., Xu, L.G., Zhai, Z. and Shu, H.B. 2003. SINK is a p65-interacting negative regulator of NF κ B-dependent transcription. *J. Biol. Chem.* 278: 27072-27079.
- Du, K., Herzog, S., Kulkarni, R.N. and Montminy, M. 2003. TRB3: a tribbles homolog that inhibits Akt/PKB activation by Insulin in liver. *Science* 300: 1574-1577.
- Greenman, C., Stephens, P., Smith, R., Dalgliesh, G.L., Hunter, C., Bignell, G., Davies, H., Teague, J., Butler, A., Stevens, C., Edkins, S., O'Meara, S., Vastrik, I., Schmidt, E.E., Avis, T., Barthorpe, S., Bhamra, G., Buck, G., et al. 2007. Patterns of somatic mutation in human cancer genomes. *Nature* 446: 153-158.

CHROMOSOMAL LOCATION

Genetic locus: STK40 (human) mapping to 1p34.3; Stk40 (mouse) mapping to 4 D2.2.

SOURCE

STK40 (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of STK40 of human origin.

STORAGE

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

PROTOCOLS

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

PRODUCT

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

Blocking peptide available for competition studies, sc-160097 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STK40 (I-12) is recommended for detection of STK40 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non-cross reactive with other STK family members.

STK40 (I-12) is also recommended for detection of STK40 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for STK40 siRNA (h): sc-78599, STK40 siRNA (m): sc-153901, STK40 shRNA Plasmid (h): sc-78599-SH, STK40 shRNA Plasmid (m): sc-153901-SH, STK40 shRNA (h) Lentiviral Particles: sc-78599-V and STK40 shRNA (m) Lentiviral Particles: sc-153901-V.

Molecular Weight of STK40: 55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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