SANTA CRUZ BIOTECHNOLOGY, INC.

STK40 (LN-87): sc-130476



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.
- 2. 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/
- 3. 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 NFκB-dependent transcription. J. Biol. Chem. 278: 27072-27079.
- Du, K., Herzig, 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

 $\mbox{STK40}$ (LN-87) is a mouse monoclonal antibody raised against recombinant $\mbox{STK40}$ of human origin.

PRODUCT

Each vial contains 100 μg IgG_{2a} kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

STK40 (LN-87) 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) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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 SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



STK40 (LN-87): sc-130476. Western blot analysis o STK40 expression in Hep G2 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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