

# STK32C (D-12): sc-165612

## BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. STK32C (serine/threonine kinase 32C), also known as PKE or YANK3, is a 486 amino acid protein belonging to the Ser/Thr protein kinase family. It contains one protein kinase domain and, using magnesium as a cofactor, STK32C catalyzes the conversion of ATP to ADP while transferring a phosphate to its target protein. Due to alternative splicing events, two isoforms exist for STK32C.

## REFERENCES

1. Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. 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.
3. Lagerström, M.C., Rabe, N., Haitina, T., Kalnina, I., Hellström, A.R., Klovins, J., Kullander, K. and Schiöth, H.B. 2007. The evolutionary history and tissue mapping of GPR123: specific CNS expression pattern predominantly in thalamic nuclei and regions containing large pyramidal cells. *J. Neurochem.* 100: 1129-1142.
4. Purcarea, C., Fernando, R., Evans, H.G. and Evans, D.R. 2008. The sole serine/threonine protein kinase and its cognate phosphatase from *Aquifex aeolicus* targets Pyrimidine biosynthesis. *Mol. Cell. Biochem.* 311: 199-213.

## CHROMOSOMAL LOCATION

Genetic locus: STK32C (human) mapping to 10q26.3; Stk32c (mouse) mapping to 7 F4.

## SOURCE

STK32C (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of STK32C 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-165612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

STK32C (D-12) is recommended for detection of STK32C 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 STK32A.

STK32C (D-12) is also recommended for detection of STK32C in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for STK32C siRNA (h): sc-90587, STK32C siRNA (m): sc-153898, STK32C shRNA Plasmid (h): sc-90587-SH, STK32C shRNA Plasmid (m): sc-153898-SH, STK32C shRNA (h) Lentiviral Particles: sc-90587-V and STK32C shRNA (m) Lentiviral Particles: sc-153898-V.

Molecular Weight of STK32C: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.