

STK31 (C-20): sc-165609

BACKGROUND

Protein kinases catalyze the post-translational transfer of a phosphate group from ATP to a serine, threonine or tyrosine residue, thereby playing a major role in many intracellular and intercellular signaling cascades. STK31 (serine/threonine-protein kinase 31) is a 1,019 amino acid protein belonging to the protein kinase superfamily. STK31 contains one C-terminal protein kinase domain and one N-terminal Tudor domain, which functions as a protein-protein interaction motif during RNA metabolism or transport. As a testis-specific kinase, STK31 is found in both post-meiotic spermatocytes as well as in mature spermatozoa and is thought to be involved in spermatogenesis and/or sperm function. Also, as a result of frequent expression in colorectal, gastric and esophageal cancers, STK31 has been identified as a potential cancer/testis (CT) antigen. There are two named isoforms of STK31 which are produced as a result of an alternative splicing event.

REFERENCES

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4. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605790. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Spiridonov, N.A., et al. 2005. Identification and characterization of SSTK, a serine/threonine protein kinase essential for male fertility. *Mol. Cell. Biol.* 25: 4250-4261.
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7. Yokoe, T., et al. 2008. Efficient identification of a novel cancer/testis antigen for immunotherapy using three-step microarray analysis. *Cancer Res.* 68: 1074-1082.
8. Sabeur, K., et al. 2008. Characterization of a novel, testis-specific equine serine/threonine kinase. *Mol. Reprod. Dev.* 75: 867-873.

CHROMOSOMAL LOCATION

Genetic locus: STK31 (human) mapping to 7p15.3; Stk31 (mouse) mapping to 6 B2.3.

SOURCE

STK31 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of STK31 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.

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-165609 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STK31 (C-20) is recommended for detection of STK31 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.

STK31 (C-20) is also recommended for detection of STK31 in additional species, including equine and bovine.

Suitable for use as control antibody for STK31 siRNA (h): sc-89897, STK31 siRNA (m): sc-153896, STK31 shRNA Plasmid (h): sc-89897-SH, STK31 shRNA Plasmid (m): sc-153896-SH, STK31 shRNA (h) Lentiviral Particles: sc-89897-V and STK31 shRNA (m) Lentiviral Particles: sc-153896-V.

Molecular Weight of STK31: 70 kDa.

Positive Controls: rat testis extract: sc-2400.

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 or our catalog for detailed protocols and support products.