

# STK19 (H-298): sc-292047

## BACKGROUND

The phosphorylation of proteins by protein kinases and protein phosphatases is a key event in most nuclear and cytoplasmic processes. The ability to activate and deactivate proteins via phosphorylation or dephosphorylation is important for cell division, cell differentiation, DNA repair and transcription. STK19 (serine/threonine kinase 19), also known as G<sub>11</sub>, RP1, D6S60, D6S60E or HLA-RP1, is a 368 amino acid protein that localizes to the nucleus and is a member of the superfamily of serine/threonine protein kinases. Expressed in monocytes, hepatocytes, epithelial cells and T- and B-lymphocytes, STK19 is a protein kinase that can catalytically phosphorylate serine and threonine residues on proteins such as histones and caseins. STK19 functions in an ATP-dependent manner and uses divalent cations, including manganese, as cofactors. Multiple isoforms of STK19 exist due to alternative splicing events.

## REFERENCES

- Shen, L., et al. 1994. Structure and genetics of the partially duplicated gene RP located immediately upstream of the complement C4A and the C4B genes in the HLA class III region. Molecular cloning, exon-intron structure, composite retroposon, and breakpoint of gene duplication. *J. Biol. Chem.* 269: 8466-8476.
- Sargent, C.A., et al. 1994. Characterisation of the novel gene G<sub>11</sub> lying adjacent to the complement C4A gene in the human major histocompatibility complex. *Hum. Mol. Genet.* 3: 481-488.
- Gomez-Escobar, N., et al. 1998. The G<sub>11</sub> gene located in the major histocompatibility complex encodes a novel nuclear serine/threonine protein kinase. *J. Biol. Chem.* 273: 30954-30960.
- Liu, F., et al. 2002. Involvement of both G<sub>q/11</sub> and G<sub>s</sub> proteins in gonadotropin-releasing hormone receptor-mediated signaling in LβT2 cells. *J. Biol. Chem.* 277: 32099-32108.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604977. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Wadle, A., et al. 2005. Characterization of Hap/BAG-1 variants as RP1 binding proteins with antiapoptotic activity. *Int. J. Cancer* 117: 896-904.

## CHROMOSOMAL LOCATION

Genetic locus: STK19 (human) mapping to 6p21.33; Stk19 (mouse) mapping to 17 B1.

## SOURCE

STK19 (H-298) is a rabbit polyclonal antibody raised against amino acids 71-368 mapping at the C-terminus of STK19 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.

## RESEARCH USE

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

## APPLICATIONS

STK19 (H-298) is recommended for detection of STK19 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for STK19 siRNA (h): sc-95613, STK19 siRNA (m): sc-153895, STK19 shRNA Plasmid (h): sc-95613-SH, STK19 shRNA Plasmid (m): sc-153895-SH, STK19 shRNA (h) Lentiviral Particles: sc-95613-V and STK19 shRNA (m) Lentiviral Particles: sc-153895-V.

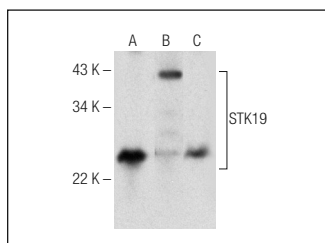
Molecular Weight of STK19 isoforms: 29/42 kDa.

Positive Controls: human breast extract: sc-363753, human liver extract: sc-363766 or human testis extract: sc-363781.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



STK19 (H-298): sc-292047. Western blot analysis of STK19 expression in human breast (A), human liver (B) and human testis (C) tissue extracts.

## STORAGE

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

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Try **STK19 (3B6): sc-100427**, our highly recommended monoclonal alternative to STK19 (H-298).