

# STK19 (Q-15): sc-169447

## 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 G11, 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

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- Gomez-Escobar, N., et al. 1998. The G11 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</sub>/11 and G<sub>s</sub> proteins in gonadotropin-releasing hormone receptor-mediated signaling in L  $\beta$  T2 cells. *J. Biol. Chem.* 277: 32099-32108.
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- Wadle, A., et al. 2005. Characterization of Hap/BAG-1 variants as RP1 binding proteins with antiapoptotic activity. *Int. J. Cancer* 117: 896-904.
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## CHROMOSOMAL LOCATION

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

## SOURCE

STK19 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of STK19 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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169447 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

STK19 (Q-15) 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), 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.

STK19 (Q-15) is also recommended for detection of STK19 in additional species, including canine and porcine.

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: K-562 whole cell lysate: sc-2203 or HL-60 whole cell lysate: sc-2209.

## 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.