

PASK (C-14): sc-74812

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. PASK (PAS domain containing serine/threonine kinase), also known as STK37, PASKIN or KIAA0135, is a 1,323 amino acid cytoplasmic protein that belongs to the Ser/Thr protein kinase family and contains one protein kinase domain and 2 PAS domains. Expressed ubiquitously with higher levels present in brain, testis and prostate, PASK functions to catalyze the ATP-dependent phosphorylation of target proteins and is functionally activated via autophosphorylation on Thr 1161 and Thr 1165. Multiple isoforms of PASK exist due to alternative splicing events.

REFERENCES

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- Hofer, T., Spielmann, P., Stengel, P., Stier, B., Katschinski, D.M., Desbaillets, I., Gassmann, M. and Wenger, R.H. 2001. Mammalian PASKIN, a PAS-serine/threonine kinase related to bacterial oxygen sensors. *Biochem. Biophys. Res. Commun.* 288: 757-764.
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- da Silva Xavier, G., Rutter, J. and Rutter, G.A. 2004. Involvement of Per-Arnt-Sim (PAS) kinase in the stimulation of preproinsulin and pancreatic duodenum homeobox 1 gene expression by glucose. *Proc. Natl. Acad. Sci. USA* 101: 8319-8324.

CHROMOSOMAL LOCATION

Genetic locus: PASK (human) mapping to 2q37.3; Pask (mouse) mapping to 1 D.

SOURCE

PASK (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PASK 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-74812 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

PASK (C-14) is recommended for detection of PASK 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).

PASK (C-14) is also recommended for detection of PASK in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PASK siRNA (h): sc-76070, PASK siRNA (m): sc-76071, PASK shRNA Plasmid (h): sc-76070-SH, PASK shRNA Plasmid (m): sc-76071-SH, PASK shRNA (h) Lentiviral Particles: sc-76070-V and PASK shRNA (m) Lentiviral Particles: sc-76071-V.

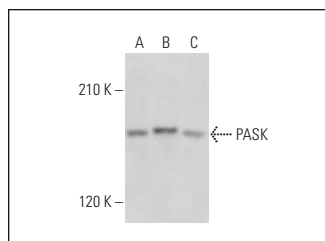
Molecular Weight of PASK: 144 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, NAMALWA cell lysate: sc-2234 or HEK293 whole cell lysate: sc-45136.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PASK (C-14): sc-74812. Western blot analysis of PASK expression in HEK293 (A), Raji (B) and Namalwa (C) whole cell lysates.

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.