

PSK2 (E-12): sc-83464

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. PSK2 (prostate-derived STE20-like kinase 2), also known as TAO1 (thousand and one amino acid protein 1), TAOK1 (TAO kinase 1), hKFC-B (kinase from chicken homolog B), MARKK or MAP3K16, is a member of the Ser/Thr protein kinase family and belongs to the GCK-like class of STE20-like kinases. Expressed at high levels in testis and at lower levels in placenta, colon, brain and skeletal muscle, PSK2 localizes to the cytoplasm and phosphorylates MEK-3, thereby activating the p38 MAP kinase pathway. In addition, PSK2 is capable of activating JNK and inducing JNK-dependent morphological changes that lead to apoptosis. Upon activation of caspases, PSK2 is cleaved by caspase-3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TAOK1 (human) mapping to 17q11.2; Taok1 (mouse) mapping to 11 B5.

SOURCE

PSK2 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSK2 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-83464 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSK2 (E-12) is recommended for detection of PSK2 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).

PSK2 (E-12) is also recommended for detection of PSK2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSK2 siRNA (h): sc-76267, PSK2 siRNA (m): sc-76268, PSK2 shRNA Plasmid (h): sc-76267-SH, PSK2 shRNA Plasmid (m): sc-76268-SH, PSK2 shRNA (h) Lentiviral Particles: sc-76267-V and PSK2 shRNA (m) Lentiviral Particles: sc-76268-V.

Molecular Weight of PSK2: 150 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse brain extract : sc-2253.

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.

STORAGE

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

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.