



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# PSK2 (m): 293T Lysate: sc-125863

## 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

1. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 65-73.
2. Berman, K.S., et al. 2001. Kin-18, a *C. elegans* protein kinase involved in feeding. Gene 279: 137-147.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610266. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Timm, T., et al. 2003. MARKK, a Ste20-like kinase, activates the polarity-inducing kinase MARK/PAR-1. EMBO J. 22: 5090-5101.
5. Zihni, C., et al. 2006. Prostate-derived sterile 20-like kinase 2 (PSK2) regulates apoptotic morphology via C-Jun N-terminal kinase and Rho kinase-1. J. Biol. Chem. 281: 7317-7323.
6. Mansouri, M.R., et al. 2006. Molecular genetic analysis of a *de novo* balanced translocation t(6;17)(p21.31;q11.2) associated with hypospadias and anorectal malformation. Hum. Genet. 119: 162-168.
7. Draviam, V.M., et al. 2007. A functional genomic screen identifies a role for TAO1 kinase in spindle-checkpoint signalling. Nat. Cell Biol. 9: 556-564.
8. Johne, C., et al. 2008. SPRED1 and TESK1—two new interaction partners of the kinase MARKK/TAO1 that link the microtubule and Actin cytoskeleton. Mol. Biol. Cell 19: 1391-1403.

## CHROMOSOMAL LOCATION

Genetic locus: Taok1 (mouse) mapping to 11 B5.

## PRODUCT

PSK2 (m): 293T Lysate represents a lysate of mouse PSK2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

PSK2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PSK2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## 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) for detailed protocols and support products.