

SPCS3 (E-14): sc-138642

BACKGROUND

SPCS3 (signal peptidase complex subunit 3), also known as SPC3, is a 180 amino acid single-pass type II membrane protein that localizes to both the microsome and the endoplasmic reticulum (ER) and belongs to the SPCS (signal peptidase complex subunit) family. Existing as a component of the microsomal signal peptidase complex which consists of five members, SPCS3 functions to remove signal peptides from proteins that are translated to the lumen of the ER. The gene encoding SPCS3 maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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2. Cowan, C.M., et al. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.
3. Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. *BMC Med. Genet.* 8: 64.
4. Cunningham, M.L., et al. 2007. Syndromic craniosynostosis: from history to hydrogen bonds. *Orthod. Craniofac. Res.* 10: 67-81.
5. Doherty, E.S., et al. 2007. Muenke syndrome (FGFR3-related craniosynostosis): Expansion of the phenotype and review of the literature. *Am. J. Med. Genet. A* 143A: 3204-3215.
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CHROMOSOMAL LOCATION

Genetic locus: SPCS3 (human) mapping to 4q34.2; Spcs3 (mouse) mapping to 8 B1.3.

SOURCE

SPCS3 (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SPCS3 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138642 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

SPCS3 (E-14) is recommended for detection of SPCS3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with SPCS2.

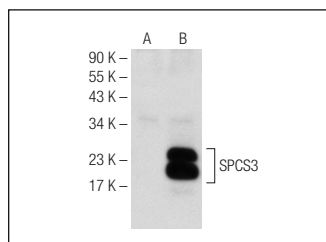
SPCS3 (E-14) is also recommended for detection of SPCS3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SPCS3 siRNA (h): sc-89051, SPCS3 siRNA (m): sc-153732, SPCS3 shRNA Plasmid (h): sc-89051-SH, SPCS3 shRNA Plasmid (m): sc-153732-SH, SPCS3 shRNA (h) Lentiviral Particles: sc-89051-V and SPCS3 shRNA (m) Lentiviral Particles: sc-153732-V.

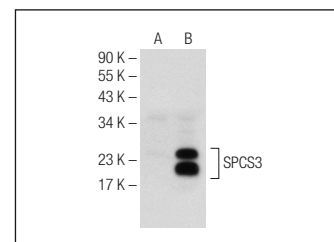
Molecular Weight of SPCS3: 20 kDa.

Positive Controls: SPCS3 (h): 293T Lysate: sc-116023 or SPCS3 (m): 293T Lysate: sc-123737.

DATA



SPCS3 (E-14): sc-138642. Western blot analysis of SPCS3 expression in non-transfected: sc-117752 (A) and mouse SPCS3 transfected: sc-123737 (B) 293T whole cell lysates.



SPCS3 (E-14): sc-138642. Western blot analysis of SPCS3 expression in non-transfected: sc-117752 (A) and human SPCS3 transfected: sc-116023 (B) 293T 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.


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Try **SPCS3 (G-7): sc-377334**, our highly recommended monoclonal alternative to SPCS3 (E-14).