

THSD3 (P-12): sc-165693

BACKGROUND

THSD3 (Thrombospondin type-1 domain-containing protein 3), also known as Isthmin-2 and TAIL1 (Thrombospondin and AMOP domain-containing isthmin-like protein 1), is a 571 amino acid secreted protein belonging to the isthmin gene family. THSD3 contains an AMOP motif and a thrombospondin type-1 domain, the latter of which is shared by several mammalian proteins with diverse biological functions, including cell adhesion, angiogenesis and patterning of developing nervous system. Expressed at high levels in placenta, THSD3 is also expressed at moderate levels in heart, pancreas, skeletal muscle, lung, kidney, liver and brain. There are five isoforms of THSD3 that are expressed as a result of alternative splicing events.

REFERENCES

1. Adams, J.C. and Tucker, R.P. 2000. The Thrombospondin type 1 repeat (TSR) superfamily: diverse proteins with related roles in neuronal development. *Dev. Dyn.* 218: 280-299.
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3. Meiniel, A., et al. 2003. The Thrombospondin type 1 repeat (TSR) and neuronal differentiation: roles of SCO-spondin oligopeptides on neuronal cell types and cell lines. *Int. Rev. Cytol.* 230: 1-39.
4. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. *Nature* 421: 601-607.
5. Rossi, V., et al. 2004. TAIL1: an isthmin-like gene, containing type 1 Thrombospondin-repeat and AMOP domain, mapped to ARVD1 critical region. *Gene* 335: 101-108.
6. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
7. Xiang, W., et al. 2009. Isthmin is a novel secreted angiogenesis inhibitor that inhibits tumor growth in mice. *J. Cell. Mol. Med.* 15: 359-374.
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CHROMOSOMAL LOCATION

Genetic locus: ISM2 (human) mapping to 14q24.3; Ism2 (mouse) mapping to 12 D2.

SOURCE

THSD3 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of THSD3 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-165693 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

THSD3 (P-12) is recommended for detection of THSD3 of mouse 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).

Suitable for use as control antibody for THSD3 siRNA (h): sc-92146, THSD3 siRNA (m): sc-154257, THSD3 shRNA Plasmid (h): sc-92146-SH, THSD3 shRNA Plasmid (m): sc-154257-SH, THSD3 shRNA (h) Lentiviral Particles: sc-92146-V and THSD3 shRNA (m) Lentiviral Particles: sc-154257-V.

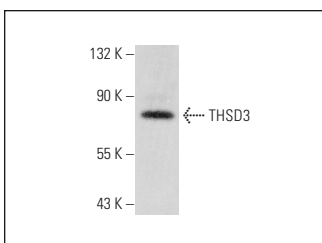
Molecular Weight of THSD3: 64 kDa.

Positive Controls: mouse liver extract: sc-2256.

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



THSD3 (P-12): sc-165693. Western blot analysis of THSD3 expression in mouse liver tissue extract.

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.