

Testican-1 (E-17): sc-49533

BACKGROUND

The Testican family, also designated the BM-40/SPARC/osteonectin family, is composed of highly conserved, extracellular, calcium-binding, sulfate proteoglycans. Expression of Testicans is detected in a variety of tissues, but is most abundant in brain. Family members include Testican-1, Testican-2, Testican-3 and an amino-terminal splice variant of Testican-3, designated N-Tes. Most Testicans inhibit MT-MMPs, thereby inhibiting the activity of pro-MMP-2. Testican-1 is specifically expressed in the thalamus of the brain, and is upregulated in activated astroglial cells of the cerebrum where it mediates neuronal attachment and matrix metalloproteinase activation. After a neural injury, such as a cerebral stroke, Testican-1 expression is upregulated in astrocyte cells in order to inhibit the ability of the protein Neuro-2a to form neurite extensions. Testican-1 is also a component of joint and of the growth plate cartilage that may participate in the regulation of matrix turnover.

REFERENCES

1. Bocock, J.P., et al. 2003. Human proteoglycan testican-1 inhibits the lysosomal cysteine protease cathepsin L. *Eur. J. Biochem.* 270: 4008-4015.
2. Marr, H.S., et al. 2003. Testican-1 inhibits attachment of Neuro-2a cells. *Matrix Biol.* 22: 259-266.
3. Edgell, C.J., et al. 2004. Testican-1: a differentially expressed proteoglycan with protease inhibiting activities. *Int. Rev. Cytol.* 236: 101-122.
4. Hausser, H.J., et al. 2004. Testican-1, an inhibitor of pro-MMP-2 activation, is expressed in cartilage. *Osteoarthr. Cartil.* 12: 870-877.
5. Meh, P., et al. 2005. Dual concentration-dependent activity of thyroglobulin type-1 domain of testican: specific inhibitor and substrate of cathepsin L. *Biol. Chem.* 386: 75-83.
6. Mohrmann, G., et al. 2005. SPOC1, a novel PHD-finger protein: association with residual disease and survival in ovarian cancer. *Int. J. Cancer* 116: 547-554.

CHROMOSOMAL LOCATION

Genetic locus: SPOCK (human) mapping to 5q31.2; Spock1 (mouse) mapping to 13 B1.

SOURCE

Testican-1 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Testican-1 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-49533 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

Testican-1 (E-17) is recommended for detection of Testican-1 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).

Testican-1 (E-17) is also recommended for detection of Testican-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Testican-1 siRNA (h): sc-61669, Testican-1 siRNA (m): sc-61670, Testican-1 shRNA Plasmid (h): sc-61669-SH, Testican-1 shRNA Plasmid (m): sc-61670-SH, Testican-1 shRNA (h) Lentiviral Particles: sc-61669-V and Testican-1 shRNA (m) Lentiviral Particles: sc-61670-V.

Molecular Weight of Testican-1: 50-56 kDa.

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.

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.