

Testican-1 (C-3): sc-390789

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.

CHROMOSOMAL LOCATION

Genetic locus: SPOCK1 (human) mapping to 5q31.2.

SOURCE

Testican-1 (C-3) is a mouse monoclonal antibody raised against amino acids 161-238 mapping within an internal region of Testican-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Testican-1 (C-3) is available conjugated to agarose (sc-390789 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390789 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390789 PE), fluorescein (sc-390789 FITC), Alexa Fluor[®] 488 (sc-390789 AF488), Alexa Fluor[®] 546 (sc-390789 AF546), Alexa Fluor[®] 594 (sc-390789 AF594) or Alexa Fluor[®] 647 (sc-390789 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390789 AF680) or Alexa Fluor[®] 790 (sc-390789 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Testican-1 (C-3) is recommended for detection of Testican-1 of human origin by Western Blotting (starting dilution 1:100, 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 Testican-1 siRNA (h): sc-61669, Testican-1 shRNA Plasmid (h): sc-61669-SH and Testican-1 shRNA (h) Lentiviral Particles: sc-61669-V.

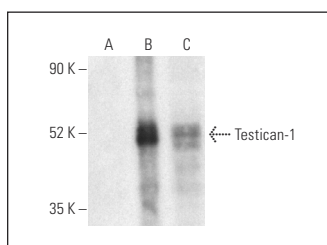
Molecular Weight of Testican-1: 50-56 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180.

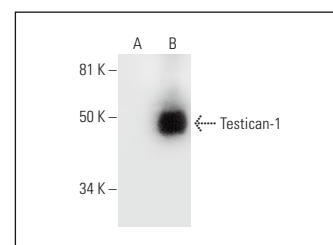
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Testican-1 (C-3): sc-390789. Western blot analysis of Testican-1 expression in non-transfected 293T (A), human Testican-1 transfected 293T (B) and HUV-EC-C (C) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



Testican-1 (C-3): sc-390789. Western blot analysis of Testican-1 expression in non-transfected (A) and human Testican-1 transfected (B) SPOCK1 cDNA whole cell lysates.

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 for detailed protocols and support products.