

Testican-2 (B-5): sc-515691

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-2 is expressed in the central nervous system (CNS), with widespread expression in the olfactory bulb, cerebral cortex, thalamus, hippocampus, cerebellum and medulla, and is also found in lung and testis. Testican-2 is unique in that it actually abolishes the inhibition of MT-MMPs by other testican family members and specifically inactivates N-Tes by binding to its COOH-terminal extracellular calcium-binding domain. Testican-2 halts neurite growth from cerebellar neurons and may be involved in regulating the development of the CNS.

REFERENCES

1. Vannahme, C., et al. 1999. Molecular cloning of Testican-2: defining a novel calcium-binding proteoglycan family expressed in brain. *J. Neurochem.* 73: 12-20.
2. Nakada, M., et al. 2003. Testican-2 abrogates inhibition of membrane-type matrix metalloproteinases by other testican family proteins. *Cancer Res.* 63: 3364-3369.
3. Meh, P., et al. 2005. Dual concentration-dependent activity of thyro-globulin type-1 domain of Testican: specific inhibitor and substrate of cathepsin L. *Biol. Chem.* 386: 75-83.

CHROMOSOMAL LOCATION

Genetic locus: SPOCK2 (human) mapping to 10q22.1; Spock2 (mouse) mapping to 10 B4.

SOURCE

Testican-2 (B-5) is a mouse monoclonal antibody raised against amino acids 293-340 mapping near the C-terminus of Testican-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Testican-2 (B-5) is available conjugated to agarose (sc-515691 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515691 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515691 PE), fluorescein (sc-515691 FITC), Alexa Fluor® 488 (sc-515691 AF488), Alexa Fluor® 546 (sc-515691 AF546), Alexa Fluor® 594 (sc-515691 AF594) or Alexa Fluor® 647 (sc-515691 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515691 AF680) or Alexa Fluor® 790 (sc-515691 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Testican-2 (B-5) is recommended for detection of Testican-2 of mouse, rat and 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-2 siRNA (h): sc-61671, Testican-2 siRNA (m): sc-61672, Testican-2 shRNA Plasmid (h): sc-61671-SH, Testican-2 shRNA Plasmid (m): sc-61672-SH, Testican-2 shRNA (h) Lentiviral Particles: sc-61671-V and Testican-2 shRNA (m) Lentiviral Particles: sc-61672-V.

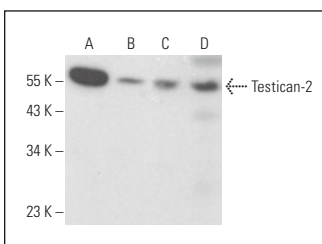
Molecular Weight of Testican-2: 47 kDa.

Positive Controls: HEK293T whole cell lysate: sc-45137, NIH/3T3 whole cell lysate: sc-2210 or HeLa whole cell lysate: sc-2200.

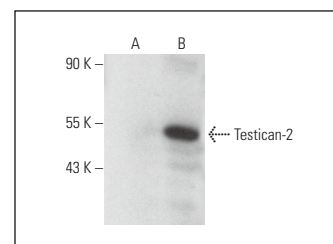
RECOMMENDED SUPPORT REAGENTS

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-2 (B-5): sc-515691. Western blot analysis of Testican-2 expression in HEK293T (A), HeLa (B) and NIH/3T3 (C) whole cell lysates and mouse postnatal brain tissue extract (D).



Testican-2 (B-5): sc-515691. Western blot analysis of Testican-2 expression in non-transfected (A) and human Testican-2 transfected (B) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Nualart, F., et al. 2023. Hyperglycemia increases SCO-spondin and Wnt5a secretion into the cerebrospinal fluid to regulate ependymal cell beating and glucose sensing. *PLoS Biol.* 21: e3002308.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.