

Tenascin-C (BC-24): sc-59884

BACKGROUND

The tenascin family of extracellular matrix proteins includes Tenascin-C (also designated cytotactin or Tenascin), Tenascin-R (also designated restrictin, TN-R or janusin) and Tenascin-X. Tenascin proteins function as substrate-adhesion molecules (SAMs) and are involved in regulating numerous developmental processes, such as morphogenetic cell migration and organogenesis. The tenascin family proteins arise from various splicing events in the region of coding for FNIII repeats. Tenascin-C and Tenascin-X are expressed in several tissues during embryogenesis and in adult tissues undergoing active remodeling, such as healing wounds and tumors. Tenascin-R is expressed on the surface of neurons and glial cells.

REFERENCES

1. Jung, M., et al. 1993. Astrocytes and neurons regulate the expression of the neural recognition molecule Janusin by cultured oligodendrocytes. *Glia* 9: 163-175.
2. Schachner, M., et al. 1994. The perplexing multifunctionality of Janusin, a tenascin-related molecule. *Perspect. Dev. Neurobiol.* 2: 33-41.
3. Chiquet-Ehrismann, R. 1995. Tenascins, a growing family of extracellular matrix proteins. *Experientia* 51: 853-862.
4. Eleftheriou, F., et al. 1997. Characterization of the bovine Tenascin-X. *J. Biol. Chem.* 272: 22866-22874.
5. Faissner, A. 1997. The tenascin gene family in axon growth and guidance. *Cell Tissue Res.* 290: 331-341.
6. Srinivasan, J., et al. 1998. Interaction of voltage-gated sodium channels with the extracellular matrix molecules Tenascin-C and Tenascin-R. *Proc. Natl. Acad. Sci. USA* 95: 15753-15757.

CHROMOSOMAL LOCATION

Genetic locus: TNC (human) mapping to 9q33.1.

SOURCE

Tenascin-C (BC-24) is a mouse monoclonal antibody raised against purified full length native Tenascin-C of human origin.

PRODUCT

Each vial contains 100 µl ascites containing IgG₁ with < 0.1% sodium azide.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Tenascin-C (BC-24) is recommended for detection of all isoforms of Tenascin-C of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:1000), immunofluorescence (starting dilution to be determined by researcher, dilution range 1:100-1:4000), immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:100-1:4000) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:3000).

Suitable for use as control antibody for Tenascin-C siRNA (h): sc-43186, Tenascin-C shRNA Plasmid (h): sc-43186-SH and Tenascin-C shRNA (h) Lentiviral Particles: sc-43186-V.

Molecular Weight of (predicted) Tenascin-C: 220 kDa.

Molecular Weight of (observed) Tenascin-C: 220-260 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411 or Hs68 cell lysate: sc-2230.

SELECT PRODUCT CITATIONS

1. Soucy, P.A., et al. 2009. Endothelial cell adhesion, signaling, and morphogenesis in fibroblast-derived matrix. *Matrix Biol.* 28: 273-283.
2. Stack, A., et al. 2013. Effects of exercise on markers of venous remodeling in lungs of horses. *Am. J. Vet. Res.* 74: 1231-1238.
3. Chang, F., et al. 2014. Endothelial matrix assembly during capillary morphogenesis: insights from chimeric TagRFP-Fibronectin matrix. *J. Histochem. Cytochem.* 62: 774-790.
4. Zamboulis, D.E., et al. 2020. Postnatal mechanical loading drives adaptation of tissues primarily through modulation of the non-collagenous matrix. *Elife* 9: e58075.

RESEARCH USE

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



See **Tenascin-C (E-9): sc-25328** for Tenascin-C antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.