

# Tenascin-C (300-3): sc-13578

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Tenascin-C (300-3) is a mouse monoclonal antibody raised against purified human tenascin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Tenascin-C (300-3) is recommended for detection of Tenascin-C of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

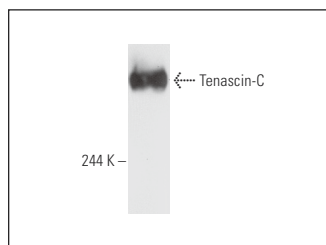
Molecular Weight of glycosylated Tenascin-C: 220-260 kDa.

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

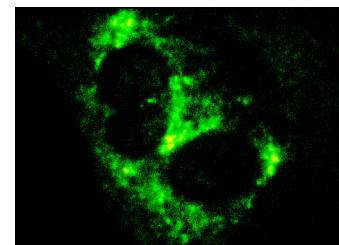
## RECOMMENDED SUPPORT REAGENTS

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



Tenascin-C (300-3): sc-13578. Western blot analysis of purified human Tenascin-C.



Tenascin-C (300-3): sc-13578. Immunofluorescence staining of methanol-fixed U-87 MG cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Kim, B.Y., et al. 2009. Corneal dystrophy-associated R124H mutation disrupts TGFBI interaction with periostin and causes mislocalization to the lysosome. *J. Biol. Chem.* 284: 19580-19591.
2. Rodrigues, M., et al. 2013. The matrikine Tenascin-C protects multipotential stromal cells/mesenchymal stem cells from death cytokines such as FasL. *Tissue Eng. Part A* 19: 1972-1983.
3. Li, H., et al. 2021. Nonlinear elasticity of biological basement membrane revealed by rapid inflation and deflation. *Proc. Natl. Acad. Sci. USA* 118: e2022422118.
4. Zhang, P., et al. 2022. Tenascin-C can serve as an indicator for the immunosuppressive microenvironment of diffuse low-grade gliomas. *Front. Immunol.* 13: 824586.

## 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.



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.