# Tenascin-N (E-19): sc-54348



The Power to Question

#### **BACKGROUND**

The Tenascin family of extracellular matrix proteins includes Tenascin (also designated cytotactin or Tenascin-C), Tenascin-R (also designated restrictin or janusin), Tenascin-X and Tenascin-N (also designated TNN, TN-W or Tenascin-W). 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 coding for fibronectin (FN) III 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 (TN-R) is expressed on the surface of neurons and glial cells and Tenascin-N, although evident during development, is predominantly expressed by neurons in the adult central nervous system. Tenascin-N may play a role in neurite outgrowth and migration functioning as a repulsive molecule in the hippocampus.

# **REFERENCES**

- 1. Jung, M., Pesheva, P., Schachner, M. and Trotter, J. 1993. Astrocytes and neurons regulate the expression of the neural recognition molecule Janusin by cultured oligodendrocytes. Glia 9: 163-175.
- Schachner, M., Taylor, J., Bartsch, U. and Pesheva, P. 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. Faissner, A. 1997. The tenascin gene family in axon growth and guidance. Cell Tissue Res. 290: 331-341.
- Elefteriou, F., Exposito, J.Y., Garrone, R. and Lethias, C. 1997. Characterization of the bovine Tenascin-X. J. Biol. Chem. 272: 22866-22874.
- Srinivasan, J., Schachner, M. and Catterall, W.A. 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.
- Neidhardt, J., Fehr, S., Kutsche, M., Löhler, J. and Schachner, M. 2003. Tenascin-N: characterization of a novel member of the Tenascin family that mediates neurite repulsion from hippocampal explants. Mol. Cell. Neurosci. 23: 193-209.
- 8. Tucker, R.P., Drabikowski, K., Hess, J.F., Ferralli, J., Chiquet-Ehrismann, R. and Adams, J.C. 2006. Phylogenetic analysis of the Tenascin gene family: evidence of origin early in the chordate lineage. BMC Evol. Biol. 6: 60.
- 9. Nishida, E., Sasaki, T., Ishikawa, S.K., Kosaka, K., Aino, M., Noguchi, T., Teranaka, T., Shimizu, N. and Saito, M. 2007. Transcriptome database KK-Periome for periodontal ligament development: expression profiles of the extracellular matrix genes. Gene 404: 70-79.

#### **CHROMOSOMAL LOCATION**

Genetic locus: TNN (human) mapping to 1q25.1; Tnn (mouse) mapping to 1 H2.1.

#### **SOURCE**

Tenascin-N (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Tenascin-N of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54348 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

Tenascin-N (E-19) is recommended for detection of Tenascin-N 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).

Tenascin-N (E-19) is also recommended for detection of Tenascin-N in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Tenascin-N siRNA (h): sc-106609, Tenascin-N siRNA (m): sc-154188, Tenascin-N shRNA Plasmid (h): sc-106609-SH, Tenascin-N shRNA Plasmid (m): sc-154188-SH, Tenascin-N shRNA (h) Lentiviral Particles: sc-106609-V and Tenascin-N shRNA (m) Lentiviral Particles: sc-154188-V.

Molecular Weight of Tenascin-N: 144 kDa.

Positive Controls: C6 whole cell lysate: sc-364373.

# **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) with UltraCruz™ Mounting Medium: sc-24941.

#### **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 or our catalog for detailed protocols and support products.