SANTA CRUZ BIOTECHNOLOGY, INC.

Tenascin-R (N-20): sc-9874

SANTA CRUZ BIOTECHNOLOGY

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) 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 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.

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. Faissner, A. 1997. The Tenascin gene family in axon growth and guidance. Cell Tissue Res. 290: 331-341.
5. Elefteriou, F., et al. 1997. Characterization of the bovine Tenascin-X. J. Biol. Chem. 272: 22866-22874.
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.
7. Lundell A, et al. 2004. Structural basis for interactions between Tenascins and lectican C-type lectin domains: evidence for a crosslinking role for Tenascins. Structure 12: 1495-1506.
8. Liao H, et al. 2005. Tenascin-R plays a role in neuroprotection via its distinct domains that coordinate to modulate the microglia function. J. Biol. Chem. 280: 8316-8323.

CHROMOSOMAL LOCATION

Genetic locus: TNR (human) mapping to 1q25.1; Tnr (mouse) mapping to 1 H1.

SOURCE

Tenascin-R (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Tenascin-R of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Tenascin-R (N-20) is recommended for detection of Tenascin-R 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-R (N-20) is also recommended for detection of Tenascin-R in additional species, including porcine.

Suitable for use as control antibody for Tenascin-R siRNA (h): sc-36639, Tenascin-R siRNA (m): sc-36640, Tenascin-R shRNA Plasmid (h): sc-36639-SH, Tenascin-R shRNA Plasmid (m): sc-36640-SH, Tenascin-R shRNA (h) Lentiviral Particles: sc-36639-V and Tenascin-R shRNA (m) Lentiviral Particles: sc-36640-V.

Molecular Weight of Tenascin-R isoforms: 160/180 kDa.

Positive Controls: T98G cell lysate: sc-2294, rat brain extract: sc-2392 or U-87 MG cell lysate: sc-2411.

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) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Godard, S., et al. 2003. Classification of human astrocytic gliomas on the basis of gene expression: a correlated group of genes with angiogenic activity emerges as a strong predictor of subtypes. Cancer Res. 63: 6613-6625.
2. Woodworth, A., et al. 2004. Neuronal-specific synthesis and glycosylation of Tenascin-R. J. Biol. Chem. 279: 10413-10421.

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.