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Product Information

Anti-Tenascin antibody, Mouse monoclonal
Clone BC-24, purified from hybridoma cell culture

Product Number **SAB4200782**

Product Description

Monoclonal Anti-Tenascin (mouse IgG1 isotype) is derived from the BC-24 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with human tenascin (GeneID 3371). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Numebr ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-Tenascin specifically recognizes an epitope located within the N-terminal EGF-like (EGF-L) sequence of the human tenascin molecule and therefore all tenascin-C isoforms.[1] The antibody is recommended to use in various immunological techniques, including immunoblot,[2,4] immuno-histochemistry,[2-4] flow cytometry,[2] and ELISA,[5] the antibody also may be used for blocking tenascin-C proliferating activity[1]. The antibody reacts with both frozen sections and formalin-fixed paraffin embedded tissues in immunohistochemistry staining.

Tenascin-C (TN-C), also known as Hexabrachion, Cytotactin, GMEM, GP 150-225, Glioma-associated-extracellular matrix antigen (GMEM), J1-200/220, Myotendinous antigen (MI), or Neuronectin (NEC1), is a high molecular mass extracellular matrix glycoprotein with key functions in cell adhesion, fibroblast migration, and other processes related to tissue remodeling and wound healing. Tenascin is expressed in association with mesenchymal-epithelial interactions during development and in the neo-vasculature and stroma of undifferentiated tumors.[6-7]

Human tenascin is a disulfide-linked hexamer composed of 3 subunits of 190, 200, and 220 kDa. It is primarily made up of 14.5 epidermal growth-factor-like repeats and 15 units similar to the fibronectin type-III-homology repeat. The C-terminus sequence has homology to the globular domain of the β and γ chains of fibrinogen. Tenascin has been independently discovered in a variety of species and tissue types, often in the basement membrane or intercellular spaces. The expression of tenascin is associated with both normal and pathological development and growth with restricted distribution in normal adult tissue.

It has been proposed that actively growing, migrating and differentiating epithelial sheets can produce factors such as TGF-β to stimulate tenascin expression.[8] Neo-expression or increased expression of tenascin has been found in the stroma of various tumors and during normal tissue repair.[8] Intracytoplasmic tenascin immunoreactivity has been detected in malignant melanomas and in lung carcinomas, and it serves as a marker of stromal element proliferation in invasive breast carcinomas. High-molecular mass tenascin isoform plays a role in generating a permissive environment for proliferation, invasion, and metastasis of neoplastic epithelial cells.[9,10] Human tenascin contains an RGD sequence which may function in cell adhesion and mediates cell attachment through an RGD-dependent integrin receptor.[11] Monoclonal anti-Tenascin antibody is a useful tool for the localization, identification and studies of tenascin role in epithelial-mesenchymal and neuronal-glial interactions.[12-13]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a working concentration of 5–10 μg/mL is recommended using pronase-retrieved formalin-fixed, paraffin-embedded human tonsil sections.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

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