

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Tenascin C in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tenascin C Ser186-Pro625 Accession # P24821
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Tenascin C, also known as hexabrachion, cytotactin, neuronectin, GMEM, J1, myotendinous antigen, glioma-associated-extracellular matrix antigen, and GP 150-225, is a member of the Tenascin family of extracellular matrix proteins. It is secreted as a disulfide-linked homohexamer whose subunits can vary in size from approximately 200 kDa to over 300 kDa due to differences in glycosylation (1). Rotary-shadowed electron micrographs of the purified molecule show six strands joined to one another at one end in a globular domain with each arm terminating in a knob-like structure (2, 3). The human Tenascin C monomer is synthesized as a precursor with a 22 amino acid (aa) signal sequence and a 2179 aa mature chain. The mature chain consists of a coiled-coil region (aa 118-145), followed by 15 EGF-like domains, 15 fibronectin type-III domains, and a fibrinogen C-terminal domain. In addition, there are 23 potential sites of N-linked glycosylation. Alternative splicing within the fibronectin type-III repeats produces six isoforms for human Tenascin C. Mature human Tenascin C (isoform 1) shares 84% aa sequence identity with mature mouse Tenascin C. In the developing embryo, Tenascin C is expressed during neural, skeletal, and vascular morphogenesis (1, 2). In the adult, it virtually disappears with continued basal expression detectable only in tendon-associated tissues (1, 2). However, great up-regulation in expression occurs in tissues undergoing remodeling processes seen during wound repair and neovascularization or in pathological states such as inflammation or tumorigenesis (1, 4, 5). Biologically, Tenascin C functions as an adhesion-modulatory extracellular matrix protein (1, 4-8). Specifically, it antagonizes the adhesive effects of fibronectin, and impacts the ability of fibroblasts to deposit and contract the matrix by affecting the morphology and signaling pathways of adherent cells (5-7). Tenascin C acts by blocking syndecan-4 binding at the edges of the wound and by suppressing fibronectin-mediated activation of RhoA and focal adhesion kinase (FAK) (4-8). Tenascin C thus promotes epidermal cell migration and proliferation during wound repair.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.