Human Neurocan Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6508R
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Neurocan in direct ELISAs. In direct ELISAs, less than 10% cross-reactivity with recombinant mouse Neurocan is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Neurocan Glu23-Cys1321 Accession # O14594
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.*

Immunohistochemistry	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

Neurocan, also known as CSPG3 and 1D1, is a secreted chondroitin sulfate proteoglycan that is primarily expressed in the central nervous system (1). Human Neurocan contains one Ig-like V-type domain, two Link domains, two EGF-like domains, one C-type lectin-like domain, and one Sushi domain (2). It is an approximately 300 kDa molecule of which 66 kDa is chondroitin sulfate and 60 kDa is N- and O-linked glycosylation (3). Mature human Neurocan shares 66% aa sequence identity with mature mouse and rat Neurocan. Human Neurocan is predicted to be cleaved following Met635, resulting in N-terminal (Neurocan-130) and C-terminal (Neurocan-C) fragments whose core glycoproteins are 130 kDa and 150 kDa, respectively (4, 5). The full length molecule is expressed in the developing and juvenile brain, while its cleavage products are found throughout adulthood (3, 4). Neurocan and Neurocan-C are produced by astrocytes and accumulate in the matrix surrounding axonal bundles and neuronal cell bodies; Neurocan-130 is found mainly in the glial cell cytoplasm (6-8). Following brain injury, reactive astrocytes deposit increased amounts of Neurocan in the glial scar where it impedes axonal regeneration (6, 9). Neurocan inhibits neuronal adhesion and neurite outgrowth through interactions with a variety of matrix and transmembrane molecules including NCAM-L1, NCAM-1, Syndecan-3, Glypican-1, Tenascin, Contactin-2/TAG1, and HAPLN1 (1, 6, 10-15).

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.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475