



Biotinylated Anti-mouse/rat Neurocan Antibody

ORDERING INFORMATION

Catalog Number: BAF5800

Lot Number: CDIG01

Size: 50 µg

Formulation: 0.2 µm filtered solution in PBS with BSA

Storage: -20° C

Reconstitution: sterile 0.1% BSA in TBS

Specificity: mouse and rat Neurocan

Immunogen: CHO cell-derived rmNeurocan (aa 23 - 637)

Ig Type: sheep IgG

Application: Western blot

Background

Neurocan (Neural proteoglycan; also CSPG3) is a secreted, 300 - 350 kDa proteoglycan member of the lectican family of molecules. It is expressed by neurons and astrocytes, and has multiple binding partners, including heparin, FGF2, HB-CAM, glypican-1, syndecan-3, and tenascin-C plus -R. Its expression is highest during development where it regulates neuronal migration and neurite outgrowth. Mature mouse Neurocan is 1246 amino acids (aa) in length. It is highly modular, containing a V-type Ig-like domain (aa 43 - 157), two link modules (aa 159 - 356), two EGF-like domains (aa 960 - 1034), a C-type lectin region (aa 1036 - 1165), and a Sushi domain (aa 1165 - 1225). Cleavage occurs between Met643 and Leu644, generating a 621 aa, 170 - 190 kDa N-terminal fragment, and a 625 aa, 180 kDa C-terminal fragment. Without proteoglycan adducts, SDS-page shows full-length Neurocan to be 245 - 260 kDa in size, with the N-terminal fragment 130 kDa, and the C-terminal fragment 150 kDa in size. Over aa 23 - 637, mouse Neurocan shares 90% and 75% aa identity with rat and human Neurocan, respectively.

Preparation

Produced in sheep immunized with purified, CHO cell-derived, recombinant mouse Neurocan (rmNeurocan; aa 23 - 637; Accession # NP_031815). Neurocan specific IgG was purified by mouse Neurocan affinity chromatography and then biotinylated.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) containing 50 µg of bovine serum albumin (BSA) per 1 µg of antibody.

Reconstitution

Reconstitute with sterile Tris-buffered saline pH 7.3 (20 mM Trizma base, 150 mM NaCl) containing 0.1% BSA. If 1 mL of buffer is used, the antibody concentration will be 50 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for use as a detection antibody in mouse and rat Neurocan Western blots.

Application

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect Neurocan. The detection limit for rmNeurocan is approximately 2 ng/lane under non-reducing and reducing conditions.

Optimal dilutions should be determined by each laboratory for each application.

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