Mouse Contactin-6 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF5890

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Contactin-6 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human (rh) Contactin-6 is observed, and less than 5% cross-reactivity with recombinant mouse (rm) Contactin-3, rmContactin-4, rmContactin–5, and rhTAG-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse Contactin-6 Glu20-Ser998 Accession # Q9JMB8
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

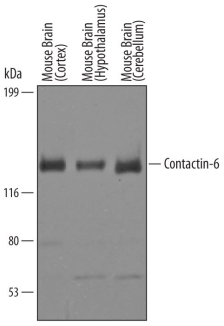
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below

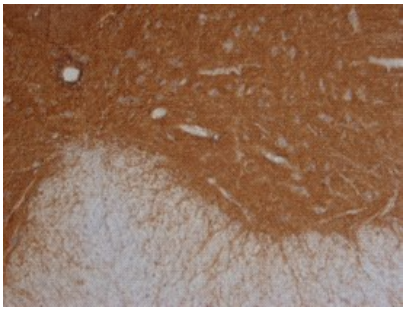
DATA

Western Blot



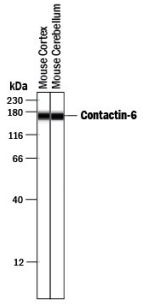
Detection of Mouse Contactin-6 by Western Blot. Western blot shows lysates of mouse brain (cortex) tissue, mouse brain (hypothalamus) tissue, and mouse brain (cerebellum) tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse Contactin-6 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5890) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Contactin-6 at approximately 130 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



Contactin-6 in Mouse Spinal Cord. Contactin-6 was detected in perfusion fixed frozen sections of adult mouse spinal cord using Sheep Anti-Mouse Contactin-6 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5890) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counter-stained with hematoxylin (blue). Specific staining was localized to gray matter. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

Simple Western



Detection of Mouse Contactin-6 by Simple Western™. Simple Western lane view shows lysates of mouse brain (cortex) tissue and mouse brain (cerebellum) tissue, loaded at 0.2 mg/mL. A specific band was detected for Contactin-6 at approximately 168 kDa (as indicated) using 10 µg/mL of Sheep Anti-Mouse Contactin-6 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5890) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Contactin-6, also known as NB-3, is a 130 kDa member of the TAG/F3 subgroup of Contactin GPI-linked neuronal adhesion proteins (1, 2). Mature mouse Contactin-6 consists of six immunoglobulin-like domains, a flexible linker region, four fibronectin type III domains, and a GPI anchor (3-5). Mouse Contactin-6 shares 90% and 96% amino acid (aa) sequence identity with human and rat Contactin-6, respectively. Alternate splicing generates an isoform with a 17 aa deletion in the first Ig-like domain (3). Contactin-6 expression is upregulated postnatally in the cerebellum, brainstem, and hippocampus, and it shows differential expression within various structures of the brain (3, 5-7). In the cerebellum, it is presynaptically localized at synapses between excitatory glutamatergic parallel fibers and Purkinje cells (7). Contactin-6 associates *in cis* with CHL-1 and *in trans* with Notch-1 on oligodendrocytes (6, 8). Its binding to Notch-1 triggers translocation of the Notch intracellular domain to the nucleus and promotes oligodendrogenesis (6). Contactin-6 function is important in the postnatal development and function of the cerebellum, as shown in knockout mice which exhibit poor motor coordination (5, 7).

References:

1. Shimoda, Y. and K. Watanabe (2009) Cell Adhesion Migration **3**:64.
2. Hu, Q.D. *et al*. (2006) Dev. Neurosci. **28**:25.
3. Lee, S. *et al*. (2000) Gene **245**:253.
4. Ogawa, J. *et al*. (1996) Neurosci. Lett. **218**:173.
5. Takeda, Y. *et al*. (2003) J. Neurobiol. **56**:252.
6. Cui, X.-Y. *et al*. (2004) J. Biol. Chem. **279**:25858.
7. Sakurai, K. *et al*. (2009) Dev. Neurobiol. Aug 11 epub.
8. Ye, H. *et al*. (2008) EMBO J. **27**:188.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 **Europe | Middle East | Africa** TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956