



Rabbit antibody to Contactin-6 (54-64): whole serum

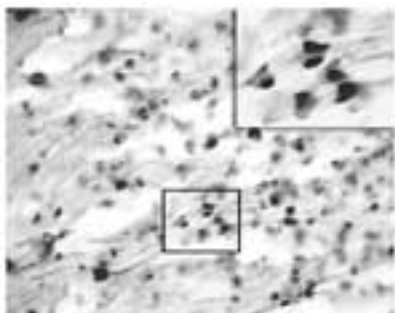
Catalogue No.:	R-106-100
Description:	The neural adhesion molecule Contactin-6, also known as NB-3, is a contactin/F3 subgroup member of immunoglobulin superfamily. It is expressed exclusively in the nervous system and mainly upregulated at the early postnatal stage during mouse brain development. Employing Northern blot analysis Kamei et al found that amongst different regions of the adult human nervous system cerebellum expressed highest level of NB-3 mRNA. The expression of NB-3 in the cerebellum increases until adulthood. In contrast, the expression in the cerebrum declines to a low level after postnatal day 7. NB-3 like other neural recognition molecules plays a vitally important role in axonal guidance during development, plasticity, and maintenance of synaptic connections in the adult brain. Cui et al recently showed that NB-3 acts as a novel Notch ligand to participate in oligodendrocyte generation. Furthermore, NB-3 triggers nuclear translocation of the Notch intracellular domain and promotes oligodendroglialogenesis from progenitor cells and differentiation of oligodendrocyte precursor cells via Deltex1. In primary oligodendrocytes, NB-3 increases myelin-associated glycoprotein transcripts. Hence, the NB-3/Notch signaling pathway may be worthwhile a closer examination for its potential for the treatment of demyelinating diseases. Human NB-3 shares with rat NB-3 86% identity in nucleotide sequences and 90% identity in amino acid sequences. FUNCTION: Contactins mediate cell surface interactions during nervous system development. Participates in oligodendrocytes generation by acting as a ligand of NOTCH1. Its association with NOTCH1 promotes NOTCH1 activation through the released notch intracellular domain (NICD) and subsequent translocation to the nucleus. Involved in motor coordination. SUBCELLULAR LOCATION: Cell membrane; lipid-anchor; GPI-anchor. ALTERNATIVE PRODUCTS: 2 named isoforms produced by alternative splicing. TISSUE SPECIFICITY: Expressed in brain. In brain, it is preferentially expressed in the accessory olfactory bulb, layers II/III and V of the cerebral cortex, piriform cortex, anterior thalamic nuclei, locus coeruleus of the pons and mesencephalic trigeminal nucleus and in Purkinje cells of the cerebellum.
Batch No.:	See product label
Unit size:	100 uL
Antigen:	A synthetic peptide (GYSPHYRWKQ) as part of mouse contactin-6 conjugated to KLH has been used as the immunogen.
Other Names:	Neural recognition molecule NB-3; mNB-3
Accession:	CNTN6_MOUSE
Produced in:	Rabbit
Purity:	Whole serum
Applications:	IHC. A dilution of 1:1000 to 1: 4000 is recommended. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	This antiserum stains beautifully the NB3 in DRG, where it nicely stains a subpopulation of neurons and in the trigeminal nerve root, where staining is restricted to the oligodendrocytes.
Cross-reactivity:	Confirmed to react with rat Contactin-6 and expected to recognise human and mouse

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	Contactin-6 as well.
Form:	Lyophilised
Reconstitution:	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution keep aliquots at -20C for increased stability, and at 2-8C with an appropriate antibacterial agent. Avoid repetitive freeze/thaw cycles. Glycerol (1:1) may be added for an additional stability.
Expiry Date:	12 months after purchase
References:	<ol style="list-style-type: none">1. Kamei et al (1998) J Neurosci Res. 51(3):275-832. Takeda et al (2003) J Neurobiol. 56(3):252-653. Lee et al (2000) Gene. 245(2):253-664. Cui et al (2004) J Biol Chem. 279(24):25858-65



Immunohistochemical detection of contactin-6 in rat sciatic nerve using antisera R-023-50. Anesthetized animals were perfused with 4% paraformaldehyde in PBS containing 12.5% picric acid. Floating cryostat sections of sciatic nerve were permeabilized with 0.5% NP-40 in Tris-buffered saline and blocked with 5% normal goat serum. Sections were incubated with polyclonal rabbit antibody to contactin-6 diluted 1:3000, followed by incubation with biotinylated sheep anti-rabbit antibody and avidin-biotin-peroxidase complex. The immunocomplex was visualized with DAB.

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