

PRODUCT INFORMATION



Contactin-6 (human, recombinant)

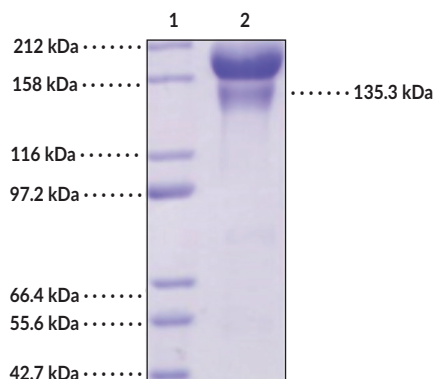
Item No. 43690

Overview and Properties

Synonyms: CNTN6, hNB-3, Neural Recognition Molecule NB-3
Source: Recombinant C-terminal human IgG1 Fc-tagged contactin-6 expressed in HEK293 cells
Amino Acids: 20-999
Uniprot No.: Q9UQ52
Molecular Weight: 135.3 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥95% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: <1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Contactin-6

SDS-PAGE Analysis of Contactin-6. This protein has a calculated molecular weight of 135.3 kDa.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Contactin-6 is a neural cell adhesion molecule and member of the immunoglobulin (Ig) superfamily.¹ It is composed of six Ig-like repeats, four fibronectin type III-like domains, and a hydrophobic C-terminal sequence that contains a glycosylphosphatidylinositol (GPI) anchor site. Contactin-6 is ubiquitously expressed in the brain with the highest levels in the cerebellum.² It is involved in neuronal apoptosis, axon regeneration in response to injury, and dendrite orientation.^{1,3} Contactin-6 forms stabilized interactions with proteins such as latrophilin-1, Notch, and protein tyrosine phosphatase α (PTP α), PTP γ , and PTP σ , and binds to them in either *cis* or *trans*. Homozygous knockout of *CNTN6*, the gene encoding contactin-6, in male mice decreases contactin-6 levels in the accessory olfactory system and reduces mating preference toward estrous female mice.⁴ Cayman's Contactin-6 (human, recombinant) protein consists of 1,218 amino acids, has a calculated molecular weight of 135.3 kDa, and a predicted N-terminus of Asp20 after signal peptide cleavage.

References

1. Oguro-Ando, A., Zuko, A., Kleijer, K.T.E., *et al.* A current view on contactin-4, -5, and -6: Implications in neurodevelopmental disorders. *Mol. Cell. Neurosci.* **81**, 72-83 (2017).
2. Kamei, Y., Tsutsumi, O., Taketani, Y., *et al.* cDNA cloning and chromosomal localization of neural adhesion molecule NB-3 in human. *J. Neurosci. Res.* **51(3)**, 275-283 (1998).
3. Zuko, A., Oguro-Ando, A., Post, H., *et al.* Association of cell adhesion molecules contactin-6 and latrophilin-1 regulates neuronal apoptosis. *Front. Mol. Neurosci.* **9**, 143 (2016).
4. Zhang, W., Huang, H., Gui, A., *et al.* Contactin-6-deficient male mice exhibit the abnormal function of the accessory olfactory system and impaired reproductive behavior. *Brain Behav.* **13(4)**, e2893 (2023).

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