PRODUCT INFORMATION

Contactin-6 (human, recombinant)

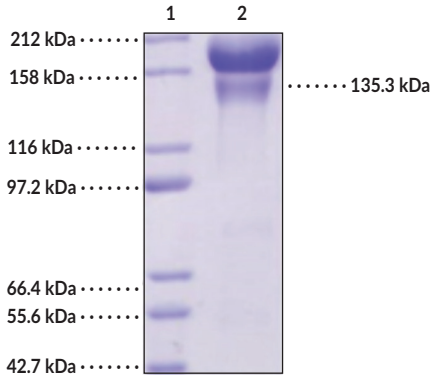
Item No. 43690

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.

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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 (PTPα), PTPγ, and PTPσ, 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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