

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived		
	Mouse Contactin-1 (Asp21-Thr999) Accession # AAH66864	HPGGGSGGGSGGGS	HHHHHH
	N-terminus		C-terminus
N-terminal Sequence Analysis	Asp21		
Predicted Molecular Mass	111 kDa		

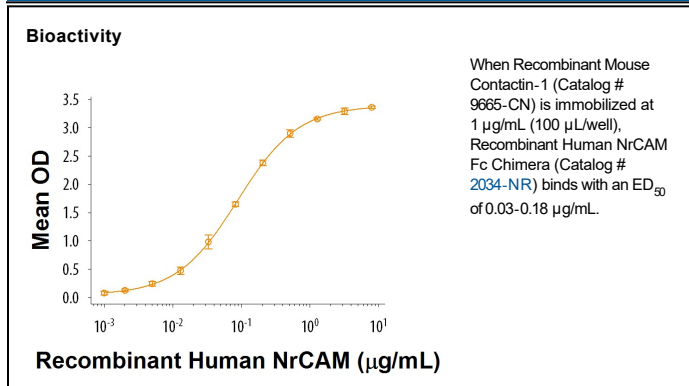
SPECIFICATIONS

SDS-PAGE	119-135 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse Contactin-1 is coated at 1 µg/mL, 100 µL/well, Recombinant Human NrCAM Fc Chimera (Catalog # 2034-NR) binds with an ED ₅₀ of 0.03-0.18 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 400 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

Contactin-1 (CNTN1), also known as F3 and F11, is an approximately 135 kDa GPI-anchored member of the Contactin family of neuronal adhesion glycoproteins (1). Mature mouse Contactin-1 contains 6 Ig-like domains and 4 fibronectin type III-like domains, and it shares 96% and 100% amino acid (aa) sequence identity with human and rat Contactin-1, respectively (2, 3). Alternative splicing generates an isoform with an 11 aa deletion N-terminal to the first Ig-like domain and another isoform that is substituted and truncated following the sixth Ig-like domain. In humans, Contactin-1 is critical in the development of the central nervous system, and a soluble form of Contactin-1 is released into the cerebrospinal fluid (4). Contactin-1 is expressed on neurons and their precursors at sites of glial cell contact with neuronal processes (5-7). Within paranodal regions of the axon, Contactin-1 associates *in cis* with the transmembrane protein Caspr (7). It binds *in trans* to other neuronal adhesion proteins (e.g. NrCAM, Neurofascin, Tenascin R), the phosphatase PTPRZ, and the chondroitin sulfate CS-E (8-13). It also binds and activates both Notch-1 and Notch-2 (14). In cancer, Contactin-1 is up-regulated by VEGF-C and is required for VEGF R3/Flt-4 induced tumor cell invasion and metastasis (15). In humans, mutations in CNTN1 cause a familial form of lethal congenital myopathy (16).

References:

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