

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human Nectin-2/CD112 protein		
	Human Nectin-2/CD112 (Gln32-Leu360) Accession # NP_002847.1	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	No results obtained: Gln32 predicted		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	62 kDa		

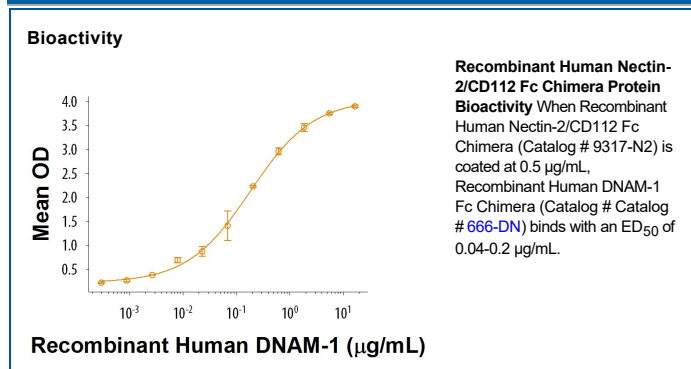
SPECIFICATIONS

Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human Nectin-2/CD112 Fc Chimera is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Recombinant Human DNAM-1 Fc Chimera (Catalog # 666-DN) that produces 50% of the optimal binding response is 0.04-0.2 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE with silver staining, under reducing conditions.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

Nectins are a small family of Ca^{++} -independent immunoglobulin (Ig)-like cell adhesion molecules (CAMs) that organize intercellular junctions (1). They are highly homologous to the human receptor for poliovirus, and as such have been alternately named poliovirus receptor-related proteins. The 65 kDa long isoform of human Nectin-2/CD112 (Nectin-2 δ) consists of a 329 amino acid (aa) extracellular region (ECD) with three immunoglobulin-like domains, a 21 aa transmembrane segment, and a 157 aa cytoplasmic domain (2). Within the ECD, human Nectin-2 shares 72% aa sequence identity with mouse Nectin-2. Alternative splicing generates a short 60 kDa isoform with a 94 aa cytoplasmic tail (2). Nectin-2 localizes to adherens junctions between neurons, endothelial cells, epithelial cells, and fibroblasts (1, 3). It forms homodimers *in cis*, followed by dimers in trans (between cells) (3). It does not *cis*-dimerize with other Nectins but forms cis-dimers between its two splice forms. Notably, a Nectin-2 cis-dimer on one cell can heterodimerize with a Nectin-3 cis-dimer on a neighboring cell (3). Nectin-2 additionally binds to DNAM-1/CD226 on NK cells and triggers NK cell cytolytic activity (4, 5). Nectin-2 is known to bind pseudorabies virus and herpes simplex virus-2 (HSV-2), but not HSV-1 or poliovirus (3, 6). Nectin-2 is a component of cardiac intercalated discs and limits fibrosis and dysfunction resulting from pressure overload (7).

References:

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4. Bottino, C. *et al.* (2003) J. Exp. Med. **198**:557.
5. Pende, D. *et al.* (2005) Mol. Immunol. **42**:463.
6. Warner, M.S. *et al.* (1998) Virology **246**:179.
7. Satomi-Kobayashi, S. *et al.* (2009) Hypertension **54**:825.