# Recombinant Cynomolgus Monkey Nectin-2/CD112 His-tag

Catalog Number: 10617-N2

## DESCRIPTION

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|---|---|
| **Source** | Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey Nectin-2/CD112 protein<br>Gln32-Gly360, with a C-terminal 6-His tag<br>Accession # XP_005589607.1 |
| **N-terminal Sequence Analysis** | Gln32, sequence confirmed by mass spectrometry |
| **Predicted Molecular Mass** | 36 kDa |

## SPECIFICATIONS

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| **SDS-PAGE** | 41-50 kDa, under reducing conditions |
| **Activity** | Measured by its binding ability in a functional ELISA.<br>When Recombinant Cynomolgus DNAM-1/CD226 Fc Chimera (Catalog # 9276-DN) is immobilized at 1 ug/mL, 100 uL/well, Recombinant Cynomolgus Monkey Nectin-2/CD112 His-tag Protein binds with an $ED_{50}$ of 0.4-2.4 ug/mL. |
| **Endotoxin Level** | <0.10 EU per 1 µg of the protein by the LAL method. |
| **Purity** | >90%, 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 with Trehalose. See Certificate of Analysis for details. |

## PREPARATION AND STORAGE

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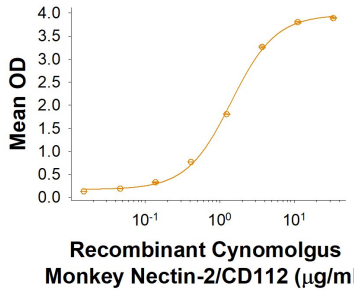
| **Reconstitution** | Reconstitute at 500 µg/mL in PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

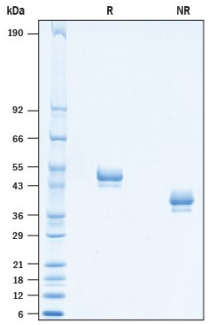
## DATA

**Binding Activity**




When Recombinant Cynomolgus Monkey DNAM-1/CD226 Fc Chimera (Catalog # 9276-DN) is immobilized at 1 µg/mL, 100 µL/well, Recombinant Cynomolgus Monkey Nectin-2/CD112 His-tag (Catalog # 10617-N2) binds with an $ED_{50}$ of 0.4-2.4 µg/mL.

**SDS-PAGE**




2 µg/lane of Recombinant Cynomolgus Monkey Nectin-2/CD112 His-tag Protein (Catalog # 10617-N2) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 41-50 kDa and 35-43 kDa, respectively.

## BACKGROUND

Nectins are a small family of $Ca^{++}$-independent immunoglobulin (Ig)-like cell adhesion molecules (CAMs) that organize intercellular junctions (1). The nectin family has at least four members (nectin-1-4), all of which show alternate splicing (except for Nectin-4), a transmembrane (TM) region (except for Nectin-1γ), and three extracellular Ig-domains. Nectins are highly homologous to the human receptor for poliovirus, and as such have been alternately named poliovirus receptor-related proteins. They do not, however, appear to bind poliovirus (1). Nectin-2 is a type I TM glycoprotein that is found on a variety of cell types (2, 3). Cynomolgus Nectin-2 is synthesized as a 538 amino acid precursor. It contains a 31 amino acid (aa) signal sequence, a 329 aa extracellular domain (ECD), a 22 aa TM segment, and a 156 aa cytoplasmic domain. The ECD contains one N-terminal V-type Ig domain and two C2-type Ig domains. The V-domain is believed to mediate nectin binding to its ligands (4). The ECD of cynomolgus Nectin-2 shows 96% aa sequence identity with the ECD of human Nectin-2. Nectin-2 is known to bind the pseudorabies virus, and herpes simplex virus-2 (HSV-2), but not HSV-1. It does not bind poliovirus. As a cell adhesion molecule, Nectin-2 will form cis-homodimers (same cell), followed by trans-dimers (across cells). Nectin-2 will not cis-dimerize with other nectins, but will cis-dimerize with its two splice forms. Notably, a Nectin-2 cis-dimer on one cell will heterodimerize with a Nectin-3 cis-dimer on another cell (1). Nectin-2 is found concentrated in adherens junctions, and exists on neurons, endothelial cells, epithelial cells and fibroblasts.

**References:**


1. Takai, Y. and H. Nakanishi, 2003, J. Cell Sci. **116**:17.
2. Bottino, C. *et al.* (2003) J. Exp. Med. **198**:557.
3. Pende, D. *et al.* (2005) Mol. Immunol. **42**:463.
4. Struyf, F. *et al.* (2002) J. Virol. **76**:12940.

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