Catalog # NC1-H5223



#### Synonym

CD56,MSK39,NCAM1,N-CAM-1

#### Source

Human NCAM-1, His Tag(NC1-H5223) is expressed from human 293 cells (HEK293). It contains AA Leu 20 - Gly 718 (Accession # <u>P13591-2</u>). Predicted N-terminus: Leu 20

# **Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 79.3 kDa. The protein migrates as 100-120 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method.

# Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### Formulation

Lyophilized from  $0.22 \ \mu m$  filtered solution in 50 mM Tris, 500 mM NaCl, pH8.0 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

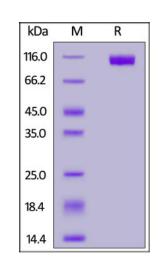
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

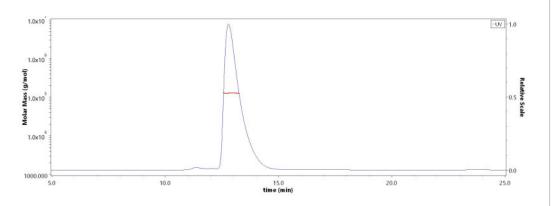
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# SDS-PAGE



Human NCAM-1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# SEC-MALS



The purity of Human NCAM-1, His Tag (Cat. No. NC1-H5223) is more than 90% and the molecular weight of this protein is around 120-135 kDa verified by SEC-MALS.

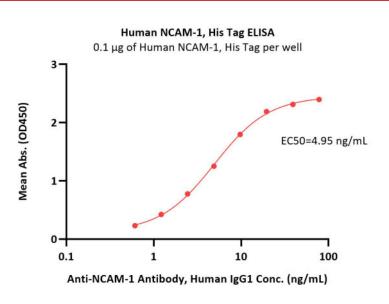


**Bioactivity-ELISA** 





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Immobilized Human NCAM-1, His Tag (Cat. No. NC1-H5223) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Anti-NCAM-1 Antibody, Human IgG1 with a linear range of 0.6-10 ng/mL (QC tested).

# Background

NCAM1 belongs to the immunoglobulin superfamily of adhesion molecules. A wide range of alternatively spliced NCAM1 messenger RNAs (mRNAs) has been described to date, but only the 120-, 140-, and 180- kDa isoforms are commonly expressed. NCAM1 plays an important role in the regulation of neurogenesis, neurite outgrowth, proliferation, and cell migration, however, its function in hematopoiesis, including NK cells, is poorly understood. NCAM1 signaling is mediated either by homophilic or heterophilic interactions with fibroblast growth factor receptor (FGFR), L1-CAM, N-cadherin and other components of the extracellular matrix. Upon activation, NCAM1 triggers a variety of signaling cascades including FYN–focal adhesion kinase (FAK), MAPK, and phosphatidylinositol 3-kinase (PI3K) pathways.

# **Clinical and Translational Updates**



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