

Recombinant Human NCAM1 Protein, His-tagged

Cat. No. NCAM1-02H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human NCAM-1 (20-603aa), fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
ProteinLength	20-603 a.a.
Description	This gene encodes a cell adhesion protein which is a member of the immunoglobulin superfamily. The encoded protein is involved in cell-to-cell interactions as well as cell-matrix interactions during development and differentiation. The encoded protein plays a role in the development of the nervous system by regulating neurogenesis, neurite outgrowth, and cell migration. This protein is also involved in the expansion of T lymphocytes, B lymphocytes and natural killer (NK) cells which play an important role in immune surveillance. This protein plays a role in signal transduction by interacting with fibroblast growth factor receptors, N-cadherin and other components of the extracellular matrix and by triggering signalling cascades involving FYN-focal adhesion kinase (FAK), mitogen-activated protein kinase (MAPK), and phosphatidylinositol 3-kinase (PI3K). One prominent isoform of this gene, cell surface molecule CD56, plays a role in several myeloproliferative disorders such as acute myeloid leukemia and differential expression of this gene is associated with differential disease progression. For example, increased expression of CD56 is

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correlated with lower survival in acute myeloid leukemia patients whereas increased severity of COVID-19 is correlated with decreased abundance of CD56-expressing NK cells in peripheral blood. Alternative splicing results in multiple transcript variants encoding distinct protein isoforms.

Form	Liquid
Molecular Mass	65.7kDa(593aa)
AA Sequence	LQVDIVPSQGEISVGESKFFLCQVAGDAKDKDISWFSPNGEKLTPNQQRISVVWND DSSSTLTIIYNANIDDAIYKCVVTGEDGSESEATVNVKIFQKLMFKNAPTPQEFREG DAVIVCDVVSSLPPTIIWKHKGRDVILKKDVRFIVLSNNYLQIRGIKKTDEGTYRCEGRI LARGEINFKDIQVIVNVPPTIARQNIVNATANLGQSVTLVCDAGFPEPTMSWTKDG EQIEQEEDDEKYIFSDDSSQLTIKKVDKNDEAEYICIAENKAGEQDATIHLKVFAKPKIT YVENQTAMELEEQVTLTCEASGDPIPSITWRTSTRNISSEKTLDGHMVVRSHARVS SLTLKSIQYTDAGEYICTASNTIGQDSQSMYLEVQYAPKLQGPVAVYTWEGNQVNIT CEVFAYPSATISWFRDGQLLPSSNYSNIKIYNTPSASYLEVTPDSEDFGNYNCTAV NRIGQESLEFILVQADTPSSPSIDQVEPYSSAQVQFDEPEATGGVPILKYKAEWRAV GEEVWHKWDYDAKEASMEGIVTIVGLKPETTYAVRLAALNGKGLGEISAASEFKTQP VHSPPP
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 95% by SDS-PAGE
Applications	SDS-PAGE
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/mL (determined by Absorbance at 280nm)

Storage Buffer In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

GENE INFORMATION

Gene Name NCAM1 neural cell adhesion molecule 1 [Homo sapiens (human)]

Official Symbol NCAM1

Synonyms NCAM1; neural cell adhesion molecule 1; CD56; NCAM; MSK39; neural cell adhesion molecule 1; antigen recognized by monoclonal antibody 5.1H11; neural cell adhesion molecule, NCAM; EC 2.7.11.1

Gene ID 4684

mRNA Refseq NM_001076682

Protein Refseq NP_001070150

MIM 116930

UniProt ID P13591

SDS-PAGE 3 µg by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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