

# Recombinant human NCAM-1/CD56 protein

Catalog Number: ATGP3991

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

20-603aa

### UniProt No.

P13591

### NCBI Accession No.

NP\_001070150

### Alternative Names

Neural cell adhesion molecule 1, Neural cell adhesion molecule 1 isoform3, N-CAM-1, NCAM-1, NCAM, NCAM1, CD56 antigen, CD56, MSK39, NCAM

## PRODUCT SPECIFICATION

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### Molecular Weight

65.7kDa(593aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

NCAM-1, also known as CD56, is a member of the immunoglobulin superfamily. It specifically binds to neuron-neuron adhesion, neurite fasciculation, outgrowth of neurites, etc. The polysialylation of NCAM-1 reduces its adhesive property and increases its neurite outgrowth promoting features. It has also been shown to be involved

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in the expansion of T cells and dendritic cells which play an important role in immune surveillance. This protein is preferentially expressed in NK cells and a subset of T lymphocytes that mediate MHC-unrestricted cell-mediated cytotoxicity. High expression of NCAM-1/CD56 differentiates NK cells as having an activated phenotype. CD56(+high) NK cells mediate heightened effector functions in response to IL-12. During hematopoiesis, NCAM-1/CD56 is the prototypic marker of NK cells, also present on subset of CD4+ T cells and CD8+ T cells. In cell adhesion, it contributes to cell-cell adhesion or cell-matrix adhesion during embryonic development. In anatomic pathology, pathologists make use of it immunohistochemistry to recognize certain tumors. Recombinant human NCAM-1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

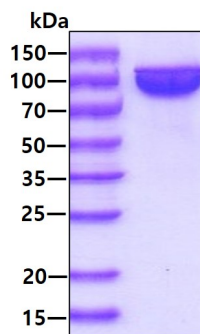
<ADP>LQVDIVP SQGEISVGES KFFLCQVAGD AKDKDISWFS PNGEKLTNPQ QRISVWVWDD SSSTLTIYNA NIDDAGIYKC VVTGEDGSES EATVNVKIFQ KLMFKNAPTP QEFREGEDAV IVCDVVSSLP PTIIWKHKGR DVILKKDVRV IVLSNNYLQI RGIKKTDEGT YRCEGRILAR GEINFKDIQV IVNVPPTIQA RQIVNATAN LGQSVTLVCD AEGFPEPTMS WTKDGEQIEQ EEDDEKYIFS DDSSQLTIKK VDKNDEAEYI CIAENKAGEQ DATIHLKVFA KPKITYVENQ TAMELEEQVT LTCEASGDPI PSITWRTSTR NISSEKTLTD GHMVVVRSHAR VSSLTLKSIQ YTDAGEYICT ASNTIGQDSQ SMYLEVQYAP KLQGPVAVYT WEGNQVNITC EVFAYPSATI SWFRDGQLLP SSNYSNIKIY NTPSASYLEV TPDSENDFGN YNCTAVNRIG QESLEFILVQ ADTPSSPSID QVEPYSSTAQ VQFDEPEATG GVPILKYKAE WRAVGEEVWH SKWYDAKEAS MEGIVTIVGL KPETTYAVRL AALNGKGLGE ISAASEFKTQ PVHSPPP<HHH HHH>

## General References

Van Acker HH, et al. (2017). *Frontiers in Immunology*. 8:892.  
 Sanchez-Heras, E. et al. (2006) *J Biol Chem*. 281:35208-35216.

## DATA

### SDS-PAGE



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