Recombinant human NCAM-1/CD56 protein

Catalog Number: ATGP3991

PRODUCT INFORMATION

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

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

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 polysialyation 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

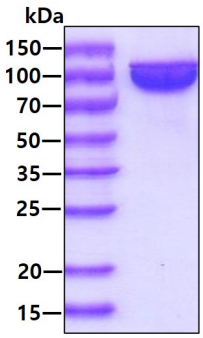
<ADP>LQVDIVP SQGEISVGES KFFLCQVAGD AKDKDISWFS PNGEKLTPNQ QRISVVWNDD SSSTLTIYNA NIDDAGIYKC VVTGEDGSES EATVNVKIFQ KLMFKNAPTP QEFREGEDAV IVCDVVSSLP PTIIWKHKGR DVILKKDVRF IVLSNNYLQI RGIKKTDEGT YRCEGRILAR GEINFKDIQV IVNVPPTIQA RQNIVNATAN LGQSVTLVCD AEGFPEPTMS WTKDGEQIEQ EEDDEKYIFS DDSSQLTIKK VDKNDEAEYI CIAENKAGEQ DATIHLKVFA KPKITYVENQ TAMELEEQVT LTCEASGDPI PSITWRTSTR NISSEEKTLD GHMVVRSHAR 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