



LD Biopharma, Inc.  
7384 Trade Street, Suite B  
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Tel: 858-876-8266  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant YFP-Human NCAM1 Protein  
**Catalog Number:** HRP-3648  
**Manufacturer:** LD Biopharma, Inc. USA

### Introduction

Neural cell adhesion molecule 1 (NCAM1, also named CD56) gene encodes this protein is a cell adhesion molecule which is involved in neuron-neuron adhesion, neurite fasciculation, outgrowth of neurites, etc. NCAM1 also acts as receptor for both rabies and Zika virus.

Full-length extracellular domain of human NCAM1 cDNA (20-718aa, derived BC047244) was constructed with codon optimization gene synthesis and expressed with a human Alpha Fetal protein at N-terminal in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified

**Gene Symbol:** NCAM1 ( CD56 )  
**Accession Number:** NP\_000606  
**Species:** Human  
**Size:** 50µg / Vial  
**Composition:** 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose, DTT and others.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least two weeks.

### Key References

ElMenshawy N, et al., *Prognostic Relevance of Concordant Expression CD69 and CD56 in Response to Bortezomib Combination Therapy in Multiple Myeloma Patients*. Cancer Invest 39 (9), 777-782 (2021)

Koumpis E, et al., *CD56 expression in multiple myeloma: Correlation with poor prognostic markers but no effect on outcome*. Pathol Res Pract 225, 153567 (2021)



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Zhao J. et al., *Decreased Serum NCAM Levels Associated with Cognitive Impairment in Vascular Dementia*. Dis Markers 2021, 2792884 (2021)

Lanier LL, et al., *Molecular and functional analysis of human natural killer cell-associated neural cell adhesion molecule (N-CAM/CD56)*. J Immunol 146 (12), 4421-4426 (1991)

## Applications

1. May be used for in vitro NCAM1 protein mediated signaling regulation for neuron cell differentiation study using this recombinant NCAM1 protein either as soluble factor or as coating matrix protein.
2. May be used for NCAM1 protein-protein interaction assay.
3. As native human NCAM1 antigen for its specific antibody production.

## Quality Control

Purity: > 92 % by SDS-PAGE.

## Recombinant **AFPn**-NCAM1 Human Fusion Protein Sequence (101.0 kD)

**MTLHRNEYGIASILDSYQCTAEISLADLATIFFAQFVQEATYKEVSKMVKDALTAIEKPTGDEQ  
SSGCLLENQLPAFLEELCHEKEILEKYGHSDCCSQSEEGRHNCFLAHKKPTPASIPLFQVPEPVT  
SCEAYEEDRETFMNFYIYEIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVT  
KELRESSGGSHHHHHHGS**LQVDIVPSQGEISVGESKFFLCQVAGDAKDKDISWFSPNGEKLTPNQQRIS  
VWVNDSSSTLTIYNANIDDAGIYKCVVTGEDGSESEATVNVKIFQKLMFKNAPTQEFREGEDAVIVCD  
VVSSLPPTIIWKHKGRDVILKKDVRFIVLSNNYLQIRGIKKTDEGTYRCEGRILARGEINFKDIQVIVNV  
PPTIQARQNIIVNATANLGQSVTLVCD AEGFPEPTMSWTKDGEQIEQEDDEKYIFSDDSSQLTIKKVDKN  
DEAEYICIAENKAGEQDATIHLKVFAPKITYVENQTAMELEEQVTLTCEASGDPIPSITWRTSTRNISS  
EEKASWTRPEKQETLDGHMVVRSHARVSSLTLKSIQYTDAGEYICTASNTIGQDSQSMYLEVQYAPKLQG  
PVAVYTWEGNQVNITCEVFAYPSATISWFRDQQLPSSNYSNIKIYNTPSASYLEVTPDSENDGNYNCT  
AVNRIGQESLEFILVQADTPSSPSIDQVEPYSSAQVQFDEPEATGGVPILKYKAEWRAVGEVWHSKWY  
DAKEASMEGIVTIVGLKPETTYAVRLAALNGKGLGEISAASEFKTQPVQGEPSAPKLEGQMGEDGNSIKV  
NLIKQDDGGSPIRHYLVRYRALSSEWKPEIRLPSGSDHVMLKSLDWNAEYEVYVVAENQQGKSKAAHFV  
RTSAQPTAIPANGSPTSG