

Recombinant Human NCAM-1/CD56 Fc Chimera Protein, Insect Cells Derived (rHuNCAM-1/CD56-Fc, Insect Cell) PrimeGene Technical Data Sheet

Catalog Number:	701-05I
Source:	<i>Insect Cell</i>
Molecular Weight:	Approximately 104.7 kDa on SDS-PAGE under reducing conditions, containing 942 amino acids.
Quantity:	5µg/100µg/500µg/1mg
AA Sequence:	AGMGMLQVDIVPSQGEISVGESKFFLCQVAGDAKDKDISWFSPNGEKLTPNQQRISVVWND DSSSTLTIYNANIDDAGIYKCVVTGEDGSESEATVNVKIFQKLMFKNAPTPQEFREGEDAVIV CDVVSSLPPTIIWKHKGRDVILKKDVRFIVLSNNYLQIRGIKKTDEGTYRCEGRILARGEINFK DIQVIVNVPPTIARQNIVNATANLGQSVTLVCDAAEGFPPTMSWTKDGEQIEQEEDDEKYIF SDDSSQLTIKKVDKNDEAEYICIAENKAGEQDATIHLKVFAKPKITYVENQTAMELEEQVTLT CEASGDPIPSITWRTSTRNISSEKASWTRPEKQETLDGHMVVRSHARVSSLTLKSIQYTDAG EYICTASNTIGQDSQSMYLEVQYAPKLQGPVAVYTWEGNQVNITCEVFAYPSATISWFRDGG LLPSSNYSNIKIYNTPSASYLEVTPDSENFNGNYNCTAVNRIGQESLEFILVQADTPSSPSIDQV EPYSSTAQVQFDEPEATGGVPILKYKAEWRAVGEEVWHSKWYDAKEASMEGIVTIVGLKPE TTYAVRLAALNGKGLGEISAASEFKTQPVQGEPSAPKLEGQMGEDGNSIKVNLIKQDDGGSP IRHYLVRYRALSSEWKPEIRLPSGSDHVMLKSLDWNAAEYEVYVVAENQQGKSAAHFVFRT SAQPTAIPANGSPSTSGIEGRMDPEKSSDKTHTCPPCPAPEFEGAPSVFLFPPKPKDTLMISRTPE VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGK EYKCKVSNKALPPTIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVE WESNGQPENNYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFCSCVMHEALHNHYTQKSL SLSPGK
Purity:	> 90% by SDS-PAGE analyses.
Biological Activity:	Testing in progress.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.0, with 5 % Trehalose, 0.02 % Tween-20.
Endotoxin:	Less than 0.1 EU/µg of rHuNCAM-1/CD56-Fc as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Human NCAM-1/CD56

Neural cell adhesion molecule 1 (NCAM-1) is a multifunctional member of the Ig superfamily. It belongs to a family of membrane-bound glycoproteins that are involved in Ca^{++} independent cell matrix and homophilic or heterophilic cell-cell interactions. NCAM-1 specifically binds to heparan sulfate proteoglycans, the extracellular matrix protein agrin, and several chondroitin sulfate proteoglycans that include neurocan and phosphocan. There are three main forms of human NCAM-1 that arise by alternate splicing. These are designated NCAM-120/NCAM-1 (761 amino acids [aa]), NCAM-140 (848 aa), and NCAM-180 (1120 aa). NCAM-120 is GPI-linked, while NCAM-140 and NCAM-180 are type I transmembrane glycoproteins. Additional alternate splicing adds considerable diversity to all three forms, and extracellular proteolytic processing is possible for NCAM-180. NCAM-1 is synthesized as a 761 aa preproprecursor that contains a 19 aa signal sequence, a 722 aa GPI-linked mature region, and a 20 aa C-terminal prosegment. The molecule contains five C-2 type Ig-like domains and two fibronectin type-III domains. Human to mouse, NCAM-1 is 93% aa identical. NCAM-1 appears to be highly sialylated. The polysialylation of NCAM-1 reduces its adhesive property and increases its neurite outgrowth promoting features. NCAM-1 in the adult brain shows a decline of sialylation relative to earlier developmental periods. In regions that retain a high degree of neuronal plasticity, however, the adult brain continues to express polysialylation-NCAM-1, suggesting sialylation of NCAM-1 is involved in regenerative processes and synaptic plasticity.