

## NCAM-1/CD56 Protein, Rat (HEK293, C-His)

<b>Cat. No.:</b>	HY-P73749A
<b>Synonyms:</b>	CD56; MSK39; NCAM-1; Neural cell adhesion molecule 1; NCAM
<b>Species:</b>	Rat
<b>Source:</b>	HEK293
<b>Accession:</b>	P13596 (L20-T721)
<b>Gene ID:</b>	24586
<b>Molecular Weight:</b>	approximately 130 kDa

### PROPERTIES

#### AA Sequence

L Q V D I V P S Q G	E I S V G E S K F F	L C Q V A G D A K D	K D I S W F S P N G
E K L S P N Q Q R I	S V V W N D D D S S	T L T I Y N A N I D	D A G I Y K C V V T
A E D G T Q S E A T	V N V K I F Q K L M	F K N A P T P Q E F	K E G E D A V I V C
D V V S S L P P T I	I W K H K G R D V I	L K K D V R F I V L	S N N Y L Q I R G I
K K T D E G T Y R C	E G R I L A R G E I	N F K D I Q V I V N	V P P T V Q A R Q S
I V N A T A N L G Q	S V T L V C D A D G	F P E P T M S W T K	D G E P I E N E E E
D D E K H I F S D D	S S E L T I R N V D	K N D E A E Y V C I	A E N K A G E Q D A
S I H L K V F A K P	K I T Y V E N Q T A	M E L E E Q V T L T	C E A S G D P I P S
I T W R T S T R N I	S S E E K A S W T R	P E K Q E T L D G H	M V V R S H A R V S
S L T L K S I Q Y T	D A G E Y I C T A S	N T I G Q D S Q S M	Y L E V Q Y A P K L
Q G P V A V Y T W E	G N Q V N I T C E V	F A Y P S A T I S W	F R D G Q L L P S S
N Y S N I K I Y N T	P S A S Y L E V T P	D S E N D F G N Y N	C T A V N R I G Q E
S L E F I L V Q A D	T P S S P S I D R V	E P Y S S T A Q V Q	F D E P E A T G G V
P I L K Y K A E W K	S L G E E A W H S K	W Y D A K E A N M E	G I V T I M G L K P
E T R Y A V R L A A	L N G K G L G E I S	A A T E F K T Q P V	R E P S A P K L E G
Q M G E D G N S I K	V N L I K Q D D G G	S P I R H Y L V K Y	R A L A S E W K P E
I R L P S G S D H V	M L K S L D W N A E	Y E V Y V V A E N Q	Q G K S K A A H F V
F R T S A Q P T A I	P A N G S P T A G L	S T	

**Biological Activity** Measured by the ability of the immobilized protein to support the adhesion of Neuro-2a human T-lymphocyte leukemia cells. The ED<sub>50</sub> this effect is 0.839 µg/mL, corresponding to a specific activity is 1.19×10<sup>3</sup> units/mg.

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

**Storage & Stability**

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping**

Room temperature in continental US; may vary elsewhere.

**DESCRIPTION****Background**

NCAM-1/CD56 Protein, a cell adhesion molecule, plays a pivotal role in various neuronal processes, including neuron-neuron adhesion, neurite fasciculation, and outgrowth of neurites. It interacts with MDK, contributing to the intricate cellular interactions in neural development. Furthermore, NCAM-1 is part of a complex involving SLC39A6, SLC39A10, and NCAM1 itself, which regulates NCAM1 phosphorylation and facilitates its integration into focal adhesion complexes during epithelial-to-mesenchymal transition. This underscores the dynamic involvement of NCAM-1 in cell adhesion and signaling events, emphasizing its importance in both neural development and cellular processes associated with epithelial-to-mesenchymal transition.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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