

## NCAM1 Protein, Rat, Recombinant (His)

### General Information

Synonyms:	neural cell adhesion molecule 1
Protein Construction:	A DNA sequence encoding the rat NCAM1 (P13596-1) (Met1-Thr721) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Leu 20
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	P13596-1
Molecular Weight:	79.2 kDa (predicted); 114-118 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 0.15M NaCl, pH 8.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

NCAM1 (Neural Cell Adhesion Molecule 1, also known as CD56) is a Protein Coding gene. 3 alternatively spliced human isoforms have been reported. NCAM1 is a neural adhesion protein (NCAM) that belongs to the immunoglobulin superfamily. The encoded protein is involved in cell-to-cell interactions as well as cell-matrix interactions during development and differentiation. NCAM1 is involved in neuron-neuron adhesion, neurite fasciculation, the outgrowth of neurites, etc. It has also been shown to be involved in the expansion of T cells and

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dendritic cells which play an important role in immune surveillance. Diseases associated with NCAM1 include Rabies and Bile Duct Cancer. Among its related pathways are Neuroscience and RET signaling.

### Reference

Reyes AA. et al., 1991, Mol Cell Biol. 11 (3): 1654-61.

Suzuki M. et al., 2003, J Biol Chem. 278 (49): 49459-68.

Becker C G. et al., 1996, J Neurosci Res. 45 (2): 143-52.

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