

# Mouse N-Cadherin / CD325 / CDH2 Protein



Sino Biological  
Biological Solution Specialist

Catalog Number: 50752-MCCH

## General Information

### Gene Name Synonym:

CDHN; N-cadherin; Ncad

### Protein Construction:

A DNA sequence encoding the mouse CDH2 (P15116) (Met1-Ala724) was fused with six amino acids (LEVLFQ) at the C-terminus was expressed and purified.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 80 % as determined by SDS-PAGE

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

**Predicted N terminal:** Ser 26

### Molecular Mass:

The recombinant mouse CDH2 consists of 706 amino acids and has a calculated molecular mass of 77.8 kDa. The recombinant protein migrates as an approximately 91 and 114 kDa band in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

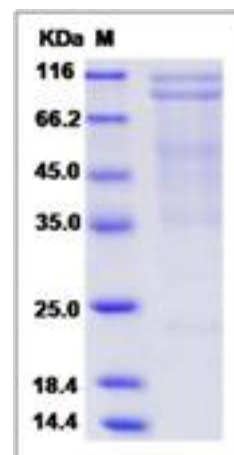
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Cadherins are calcium dependent cell adhesion proteins, and they preferentially interact with themselves in a homophilic manner in connecting cells. Cadherin 2 (CDH2), also known as N-Cadherin (neuronal) (NCAD), is a single-pass transmembrane protein and a cadherin containing 5 cadherin domains. N-Cadherin displays a ubiquitous expression pattern but with different expression levels between endocrine cell types. CDH2 (NCAD) has been shown to play an essential role in normal neuronal development, which is implicated in an array of processes including neuronal differentiation and migration, and axon growth and fasciculation. In addition, N-Cadherin expression was upregulated in human HSC during activation in culture, and function or expression blocking of N-Cadherin promoted apoptosis. During apoptosis, N-Cadherin was cleaved into 2-1 kDa fragments. It may provide a novel target for therapies that are directed toward intimal proliferative disorders, including restenosis and vascular bypass graft failure. N-Cadherin is associated with tumor aggressiveness and metastatic potential and may contribute to tumor progression.

## References

1. Jones M, et al. (2002) N-cadherin upregulation and function in response of smooth muscle cells to arterial injury. *Arterioscler Thromb Vasc Biol.* 22(12): 1972-7.
2. Nagi C, et al. (2005) N-cadherin expression in breast cancer: correlation with an aggressive histologic variant--invasive micropapillary carcinoma. *Breast Cancer Res Treat.* 94(3): 225-35.
3. Schrick C, et al. (2007) N-cadherin regulates cytoskeletally associated IQGAP1/ERK signaling and memory formation. *Neuron.* 55(5): 786-98.