



**LD Biopharma, Inc.**  
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<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CDH18 (Extracellular) Protein  
**Catalog Number:** hRP-0358  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human CDH18 gene encodes a type II classical cadherin from the cadherin superfamily of integral membrane proteins that mediate calcium-dependent cell-cell adhesion. Mature cadherin proteins are composed of a large N-terminal extracellular domain, a single membrane-spanning domain, and a small, highly conserved C-terminal cytoplasmic domain. Type II (atypical) cadherins are defined based on their lack of a HAV cell adhesion recognition sequence specific to type I cadherins. Human CDH18 is expressed specifically in the central nervous system and is putatively involved in synaptic adhesion, axon outgrowth and guidance.

Full-length extracellular domain of human CDH18 gene (54-608 aa) was constructed with 29 N-terminal T7/His tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified. Coating this recombinant protein at 1-10 ug / well (6 well plate) in neuronal cell specific medium can be used for human neuronal cell / receptor interaction study in vitro.

**Gene Symbol:** CDH18 (CDHH; p105)  
**Accession Number:** NP\_004925  
**Species:** Human  
**Size:** 100 µg / Vial  
**Composition:** 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.  
**Storage:** In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References



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Shibata, T., et al. *Identification of human cadherin-14, a novel neurally specific type II cadherin, by protein interaction cloning.* J. Biol. Chem. 272 (8), 5236-5240 (1997).

Shimoyama, Y., et al. *Identification of three human type-II classic cadherins and frequent heterophilic interactions between different subclasses of type-II classic cadherins.* Biochem. J. 349 (PT 1), 159-167 (2000).

## Applications

1. Protein can be used as coating matrix protein for study human neuronal cell / Receptor interaction in vitro.
2. As highly purified protein, may be used as culture matrix protein for human neuronal axon connection study in vitro.

## Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFGWVWNQFFVLEEHMGPDQPQYVGKLHSNSDKGDGSV  
KYILTGEAGTIFIIDDTTGD IHSTKSLDREQKTHYVLHAQAIDRRTNKPLEPESEFI IKVQDI  
NDNAPKF TDGPYIVTVPEMSDMGTSVLQVTATDADDPTYGNSARVVYSILQGQPYFSVDPKTGV  
IRTA LHNMDREAREHYSVVIQAKDMAGQVGGLSGSTTVNITLTDVNDNPPRFPQKH YQLYVPES  
AQVGS AVGKIKANDADTGSNADMTYSI INGDGMGIFSI STDKETREGILSLKKPLNYEKKKSYT  
LNIEGANTHLDFRFSHLGPFKDATMLKI IVDVDEPPLFSMPSYLMEVYENAKIGTVVGTVLAQ  
DPDSTNSLVRYFINYNVEDDRFFNIDANTGTIRTTKVLDREETPWYNIITVTASEIDNPDLLSHV  
TVGIRVLDVNDNPPPELAREYDI IVCENSKPGQVIHTISATDKDDFANGPRFNFFLDERLPVNP  
FTLKDNE DNTASILTRRRRFSRRTVQDVYYLPIMISDGGIPSLSSSSTLTIRVCACERDGRVRTC  
HAEAF LSS