

## DESCRIPTION

**Source** Chinese Hamster Ovary cell line, CHO-derived human Chondroadherin protein  
Ala22-Thr350, with a C-terminal 6-His tag  
Accession # O15335

**N-terminal Sequence Analysis** Ala22 & Cys23

**Predicted Molecular Mass** 38 kDa

## SPECIFICATIONS

**SDS-PAGE** 33-38 kDa, reducing conditions

**Activity** Measured by its ability to induce adhesion of ATDC5 mouse chondrogenic cells.  
The ED<sub>50</sub> for this effect is 0.4-2.4 µg/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

## PREPARATION AND STORAGE

**Reconstitution** Reconstitute at 500 µg/mL in PBS.

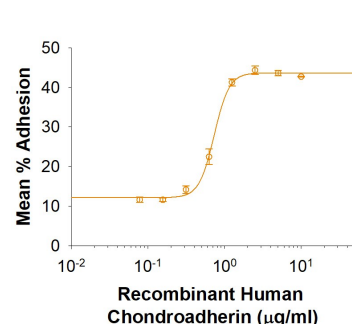
**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage**

- 12 months from date of receipt, ≤ -20 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, ≤ -20 °C under sterile conditions after reconstitution.

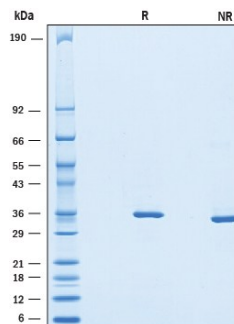
## DATA

### Bioactivity



Recombinant Human Chondroadherin (Catalog # 8218-CH) induces adhesion of ATDC5 mouse chondrogenic cells. The ED<sub>50</sub> for this effect is 0.4-2.4 µg/mL.

### SDS-PAGE



2 µg/lane of Recombinant Human Chondroadherin was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 33-38 kDa.

## BACKGROUND

Chondroadherin (CHAD), also known as SLRR4A, is a 38-kDa secreted protein belonging to the small leucine-rich proteoglycans (SLRPs) that help regulate the assembly and function of the ECM (1). CHAD is highly expressed in cartilaginous tissues, with lower expression levels found in bone, tendon, and eye (2-4). Mature human CHAD consists of a 337 amino acid (aa) protein that contains eleven leucine-rich repeats (LRRs) including nine tandem leucine-rich repeats as well as N-terminal and C-terminal leucine-rich domains flanked by cysteine-rich regions (5). CHAD interacts with collagen II and mediates signaling between chondrocytes and the ECM by binding to the α2β1 integrin, heparan sulphate, and to cell surface proteoglycans like syndecans (5-9). In addition, CHAD interacts with both N- and C-terminal globular domains of type VI collagen (10). Human CHAD shares 95% and 94% aa sequence identity with mouse and rat CHAD, respectively.

### References:

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3. Mizuno, M. *et al.* (1996) *Calcif. Tissue Int.* **59**:163.
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