



## Synonym

COMP,TSP5,EDM1,EPD1,MED,PSACH,THBS5

## Source

Human COMP, His Tag(COP-H5220) is expressed from human 293 cells (HEK293). It contains AA Gln 21 - Ala 757 (Accession # [AAI25093](#)).

Predicted N-terminus: Gln 21

## Molecular Characterization

COMP(Gln 21 - Ala 757)  
AAI25093

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 81.9 kDa. The protein migrates as 90-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>88% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

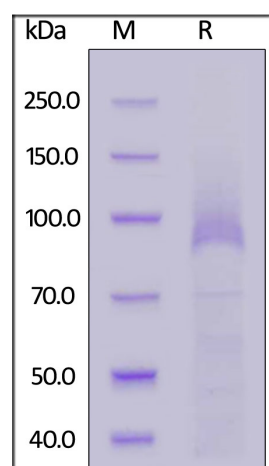
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Human COMP, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 88%.

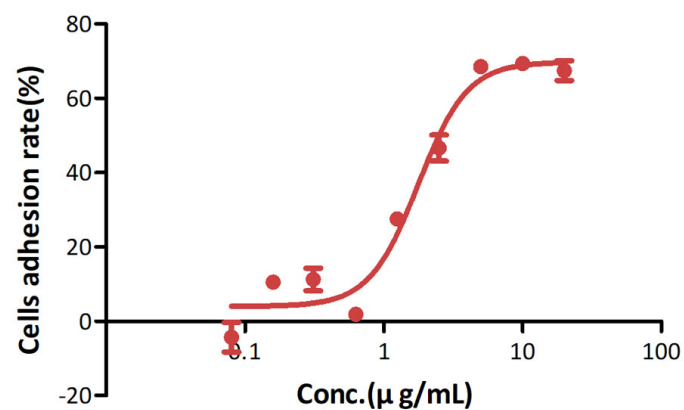
## Bioactivity-Bioactivity CELL BASE

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## Human COMP / TSP5 Protein, His Tag induces the adhesion of ATDC5



Human COMP / TSP5 Protein, His Tag (Cat. No. COP-H5220) induces the adhesion of ATDC5 cells. The EC50 value of this effect is 1.775 µg/mL (Routinely tested).

### Background

Cartilage oligomeric matrix protein (COMP) is also known as Thrombospondin-5 (TSP5), EDM1, EPD1, MED, PSACH, THBS5, which belongs to the thrombospondin family. COMP / TSP5 contains 4 EGF-like domains, 1 TSP C-terminal (TSPC) domain, 8 TSP type-3 repeats. Abundantly expressed in the chondrocyte extracellular matrix, and is also found in bone, tendon, ligament and synovium and blood vessels. COMP may play a role in the structural integrity of cartilage via its interaction with other extracellular matrix proteins such as the collagens and fibronectin. COMP can mediate the interaction of chondrocytes with the cartilage extracellular matrix through interaction with cell surface integrin receptors. Thrombospondin-5 could play a role in the pathogenesis of osteoarthritis. COMP is a marker of cartilage turnover.

### Clinical and Translational Updates

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