# Recombinant Human COMP Protein (GST,His Tag)

**Catalog Number: PDEH101069**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

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|---|---|
| **Species** | Human |
| **Source** | E.coli-derived Human COMP protein Gly22-His240, with an N-terminal GST & C-terminal His |
| **Calculated MW** | 49.0 kDa |
| **Observed MW** | 50 kDa |
| **Accession** | P49747 |
| **Bio-activity** | Not validated for activity |

## Properties

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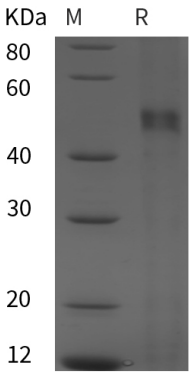
|---|---|
| **Purity** | > 95% as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 10 EU/mg of the protein as determined by the LAL method |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis. |

## Data




SDS-PAGE analysis of Human COMP proteins, 2 μg/lane of Recombinant Human COMP proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 50 kDa.

## Background

Cartilage Oligomeric Matrix Protein (COMP), also referred to as Thrombospondin-5, is a non-collagenous extracellular matrix (ECM) protein and belongs to the subgroup B of the thrombospondin protein family. This protein is expressed primarily in cartilage, ligament, and tendon, and binds to other ECM proteins such as collagen I, II and IX with high affinities depending on the divalent cations $Zn^{2+}$ or $Ni^{2+}$. COMP is a secreted glycoprotein that is important for growth plate organization and function. It is suggested to play a role in cell growth and development, and recent studies have revealed the possible mechanism that it protects cells against death by elevating members of the IAP (inhibitor of apoptosis protein) family of survival proteins. Mutations in COMP cause two skeletal dysplasias, pseudoachondroplasia (PSACH) and multiple epiphyseal dysplasia (EDM1), and up-regulated expression of COMP are observed in rheumatoid arthritis and certain carcinomas.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