Recombinant Human COMP Protein (His Tag)

Catalog Number: PKSH031804

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

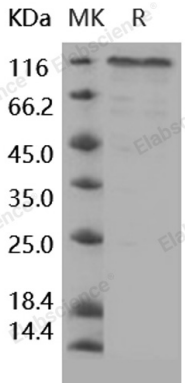
Description

Species	Human
Source	HEK293 Cells-derived Human COMP protein Met 1-Ala 757, with an C-terminal His
Calculated MW	82.4 kDa
Observed MW	120-130 kDa
Accession	NP_000086.2
Bio-activity	Measured by its ability to induce adhesion of ATDC5 mouse chondrogenic cells. When cells are added to coated plates (5 μg/ml, 100 μl/well), approximately 40% will adhere specifically after 60 minutes at 37 °C.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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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