



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human Col6A2 C-Terminal Protein
Catalog Number: hRP-0557
Manufacturer: LD Biopharma, Inc.

Introduction

Human Collagen alpha-2 (VI) chain gene encodes one of the three alpha chains of type VI collagen, a beaded filament collagen found in most connective tissues. The product of this gene contains several domains similar to von Willebrand Factor type A domains. These domains have been shown to bind extracellular matrix proteins, an interaction that explains the importance of this collagen in organizing matrix components. Mutations in Col6A2 gene are associated with Bethlem myopathy and Ullrich scleroatonic muscular dystrophy. Three transcript variants have been identified for this gene. One of isoform of Collagen VI is 227aa protein (in uniprot: Q6FHW5), which may benefits many cell type differentiation in vitro, when coated as matrix protein.

Full-length recombinant human Collagen VI extracellular domain cDNA (27 - 227 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal 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.

Gene Symbol: COL6A2
Accession Number: Q6FHW5
Species: Human
Size: 100 µg / Vial
Composition: 1.0 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 -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References



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Zhang,R.Z., et al., *Recessive COL6A2 C-globular missense mutations in Ullrich congenital muscular dystrophy: role of the C2a splice variant*. J. Biol. Chem. 285 (13), 10005-10015 (2010)

Freise,C., et al., *The alpha 2 chain of collagen type VI sequesters latent proforms of matrix-metalloproteinases and modulates their activation and activity*. Matrix Biol. 28 (8), 480-489 (2009)

Bidanset,D.J., et al., *Binding of the proteoglycan decorin to collagen type VI*. J. Biol. Chem. 267 (8), 5250-5256 (1992)

Applications

1. May be used for in vitro various collagen VI / integrin binding regulation for cell lineage specific differentiations study coating with this protein.
2. May be used for protein-protein interaction assay.
3. As antigen for specific antibody production.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGETELSV AQCTQRPVDIVFLLDGSERLGEQNFHKARRF
VEQVARRLTLARRDDDPLNARVALLQFGGPGEQQVAFPLSHNLTAIHEALET TQYLNSF SHVGA
GVVHAINAIVRSRGRARRHAELSFVFLTDGVTGNDSLHESAHSRMRKQNVVPTVLALGSDVDMD
VLTTLSLGDRAAVFHEKDYDSL AQPGFFDRFIRWIC