Active Recombinant Mouse Col1a2 protein, His-tagged

Cat. No. Col1a2-220M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Mouse Col1a2 protein(Q01149)(1109~1372 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Mouse
Source	E.coli
ProteinLength	1109-1372 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Collagen Type I Alpha 2 (COL1a2) is a major component of collagen type I found in skin, bone, muscle, tendons, ligaments and other connective tissues.The COL1a2 protein is essential for the assembly, secretion, and stability of collagen fibers, which are vital for tissue development and repair.Mutations in COL1A2 are associated with a variety of genetic disorders, such as osteogenesis imperfecta (dysplasia of the bones) and cutis laxa. These diseases are often accompanied by weak bones and loss of skin elasticity. Besides, Fibrillin 1 (FBN1) has been identified as an interactor of COL1a2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse COL1a2 and recombinant human FBN1. Briefly, COL1a2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to FBN1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-COL1a2 pAb,

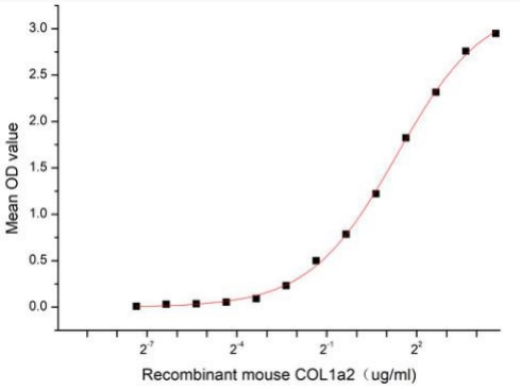
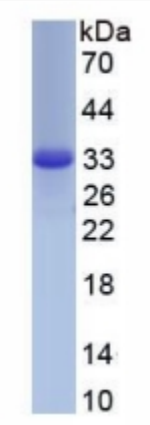
Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µ stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant mouse COL1a2 and recombinant human FBN1 was shown, the EC50 for this effect is 2.53 ug/mL.
Molecular Mass	33.0kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Col1a2 collagen, type I, alpha 2 [Mus musculus]
Official Symbol	Col1a2
Synonyms	COL1A2; collagen, type I, alpha 2; collagen alpha-2(I) chain; collagen COL1A2; alpha-2 type I collagen; osteogenesis imperfecta; procollagen, type I, alpha 2; oim; Cola2; Cola-2; Col1a-2; AA960264; AI325291;
Gene ID	12843

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

mRNA Refseq	NM_007743
Protein Refseq	NP_031769
Activity	
SDS-PAGE	

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA