

Recombinant Rat Col1a1 Protein, His&GST-tagged

Cat. No. Col1a1-1276R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Col1a1 Protein (Gln23-Ser151) with N-His&GST tag was expressed in E. coli.
Species	Rat
Source	E.coli
ProteinLength	Gln23-Ser151
Description	Predicted to enable identical protein binding activity; platelet-derived growth factor binding activity; and protease binding activity. Predicted to be an extracellular matrix structural constituent. Involved in several processes, including cellular response to growth factor stimulus; cellular response to mechanical stimulus; and cellular response to retinoic acid. Acts upstream of or within collagen-activated tyrosine kinase receptor signaling pathway. Located in several cellular components, including Golgi apparatus; endoplasmic reticulum; and secretory granule. Used to study cholestasis and non-alcoholic fatty liver disease. Biomarker of several diseases, including artery disease (multiple); bladder neck obstruction; liver disease (multiple); pulmonary fibrosis; and ureteral obstruction. Human ortholog(s) of this gene implicated in several diseases, including Ehlers-Danlos syndrome arthrochalasia type 1; aggressive periodontitis; bone disease (multiple); cutaneous leishmaniasis; and dentinogenesis imperfecta. Orthologous to human COL1A1 (collagen type I alpha 1 chain).

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Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 43.1 kDa Accurate Molecular Mass: 53 kDa
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Col1a1 collagen type I alpha 1 chain [Rattus norvegicus (Norway rat)]
Official Symbol	Col1a1
Synonyms	Col1a1; collagen type I alpha 1 chain; COLIA1; collagen alpha-1(I) chain; alpha-1 type I collagen; collagen, type 1, alpha 1; collagen, type I, alpha 1; procollagen type I,

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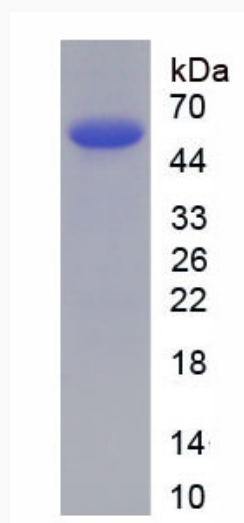
alpha 1; procollagen, type 1, alpha 1; type I-alpha 1 collagen

Gene ID [29393](#)

mRNA Refseq [NM_053304](#)

Protein Refseq [NP_445756](#)

UniProt ID [P02454](#)



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