

Active Recombinant Human COL1A1 Protein, His-tagged

Cat. No. COL1A1-815H Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant Human COL1A1 Protein(1219-1464 aa) is expressed from HEK293 with His tag at the N-Terminus.

Species

Human

Source

HEK293

ProteinLength

1219-1464 aa

Form

PBS, pH7.4, containing 5% Trehalose.

Bio-activity

Type I collagen is a fibril-forming collagen found in most connective tissues and is abundant in bone, cornea, dermis and tendon. It is a heterotrimer that consists of two alpha 1 chains and one alpha 2 chain, although homotrimers consisting of three identical alpha 1 chains have also been described. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human COL1a1 and recombinant human COL1a2. Briefly, biotin-linked COL1a1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to COL1a2-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then 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 µstop solution to the wells and read at 450 nm immediately. The binding activity of COL1a1 and COL1a2 was shown, the EC50 for this effect is 10.13 ug/mL.

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Molecular Mass	29.1kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	>90%
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

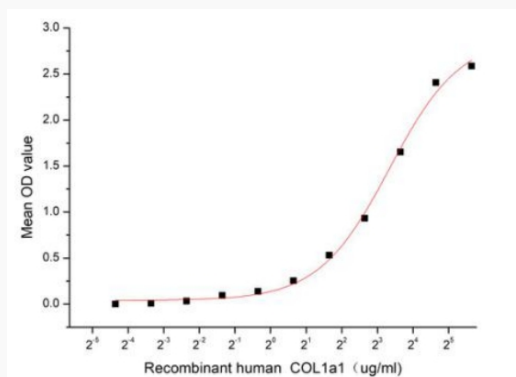
Gene Name	COL1A1 collagen, type I, alpha 1 [Homo sapiens]
Official Symbol	COL1A1
Synonyms	COL1A1; collagen, type I, alpha 1; collagen alpha-1(I) chain; OI4; alpha-1 type I collagen; pro-alpha-1 collagen type 1; collagen alpha 1 chain type I; collagen alpha-1(I) chain preproprotein; collagen of skin, tendon and bone, alpha-1 chain;
Gene ID	1277
mRNA Refseq	NM_000088
Protein Refseq	NP_000079
UniProt ID	P02452

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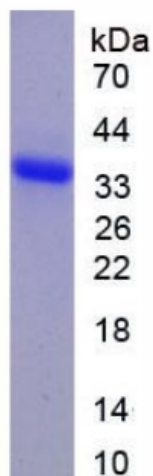
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Activity



SDS-PAGE



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