Recombinant Human COL4A3, His-tagged

Cat. No. COL4A3-1369H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human COL4A3, fused to a hexa-histidine purification tag, was expressed in Sf9 insect cells.
Species	Human
Source	Sf9 Cells
Description	Type IV collagen, the major structural component of basement membranes, is a multimeric protein composed of 3 alpha subunits. These subunits are encoded by 6 different genes, alpha 1 through alpha 6, each of which can form a triple helix structure with 2 other subunits to form type IV collagen. This gene encodes alpha 3. In the Goodpasture syndrome, autoantibodies bind to the collagen molecules in the basement membranes of alveoli and glomeruli. The epitopes that elicit these autoantibodies are localized largely to the non-collagenous C-terminal domain of the protein. A specific kinase phosphorylates amino acids in this same C-terminal region and the expression of this kinase is upregulated during pathogenesis. This gene is also linked to an autosomal recessive form of Alport syndrome. The mutations contributing to this syndrome are also located within the exons that encode this C-terminal region. Like the other members of the type IV collagen gene family, this gene is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter.
Form	Sterile Filtered clear solution. The protein solution (0.6 mg/ml) contains 20mM Hepes, pH 8.0, and 4M Urea.

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

Molecular Mass	43,591 Dalton
Notes	It has been reported that the immunodominant epitope of COL4A3 is a cryptic epitope that is not easily accessible to the corresponding autoantibodies. It is necessary to treat the protein under nonreducing conditions with a denaturant such as urea to unmask the epitopes (see Hellmark et al. in Autoantibodies, Peter, J.B. and Shoenfeld, Y., eds., Elsevier B.V., 1996, pp 291-298).
Stability	Recommendations for storage buffer: Ionic strength between 50 and 100 mM, neutral to slightly alkaline pH and 4 M urea as dissociating agent.Storage temperature is -70° to -80° C.Please prevent freeze-thaw cycles.
Concentration	0.12-0.5 ug/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination.

GENE INFORMATION

Gene Name	COL4A3 collagen, type IV, alpha 3 (Goodpasture antigen) [Homo sapiens]
Official Symbol	COL4A3
Synonyms	collagen, type IV, alpha 3 (Goodpasture antigen); COL4A3; alpha 3 type IV collagen; tumstatin; collagen IV, alpha-3 polypeptide; Goodpasture antigen; OTTHUMP00000195044
Gene ID	1285
mRNA Refseq	NM_000091
Protein Refseq	NP_000082

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

MIM	120070
UniProt ID	Q01955
Chromosome Location	2q36-q37
Pathway	Assembly of collagen fibrils and other multimeric structures; Integrin cell surface interactions; Signaling by PDGF
Function	extracellular matrix structural constituent; metalloendopeptidase inhibitor activity; integrin binding; protein binding

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