

## Recombinant Human COL4A3, His-tagged

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human COL4A3, fused to a hexa-histidine purification tag, was expressed in Sf9 insect cells.
<b>Species</b>	Human
<b>Source</b>	Sf9 Cells
<b>Description</b>	<p>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.</p>
<b>Form</b>	Sterile Filtered clear solution. The protein solution (0.6 mg/ml) contains 20mM Hepes, pH 8.0, and 4M Urea.

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<b>Molecular Mass</b>	43,591 Dalton
<b>Notes</b>	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).
<b>Stability</b>	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.
<b>Concentration</b>	0.12-0.5 ug/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination.

## GENE INFORMATION

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

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

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