

32-13164: COL4A3 Human, Biotin

Alternative Name : Collagen alpha-3(IV) chain, Goodpasture antigen, COL4A3, Glomerular Basal Membrane, GBM.

Description

Source: Sf9 insect cells.

Sterile Filtered clear solution.

Type IV collagen is a major structural component of basement membranes. It is a multimeric protein composed of 3 alpha subunits, which are encoded by 6 different genes, alpha 1 through alpha 6. Each of these alpha subunits can form a triple helix structure with 2 other subunits to form type IV collagen. The Goodpasture syndrome is a condition in which autoantibodies bind to the collagen molecules in the basement membranes of alveoli and glomeruli. The epitopes that elicit these autoantibodies are restricted basically to the non-collagenous C-terminal domain of the protein. There are numerous alternative transcripts that appear to be unique to the human COL4A3 and alternative splicing is limited to the six exons that encode this C-terminal domain. COL4A3 is also linked to an autosomal recessive form of Alport syndrome. The mutations contributing to the Alport syndrome are also situated within the exons that encode this C-terminal region. COL4A3 is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter. Several exons of COL4A3 are interspersed with exons of an uncharacterized gene which is on the opposite strand.

Human Alpha3 chain of collagen IV; identical with the antigen called "glomerular basal membrane antigen" (GBM). Calculated Molecular weight: 48kDa. Calculated isoelectric point: pH 8.9. cDNA coding for a minicollagen version of the human collagen IV Alpha3 chain fused to a 6-histidine purification tag. The term minicollagen designates the removal of most of the epitope-less triplehelical collagenous region (situated between the N-terminal 7S domain and the C-terminal noncollagenous NC1 domain), which is a requirement for recombinant production of this antigen.

Product Info

Amount :	50 µg / 100 µg
Purification :	Greater than 87% as determined by Capillary Electrophoresis.
Content :	COL4A3 Human biotin contains 20mM HEPES, pH 7.5, 0.02% SDS and 0.01mM EDTA.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.