Recombinant Human Collagen III protein ab73160

Overview

Product name: Recombinant Human Collagen III protein
Protein length: Full length protein

Description

Nature: Recombinant
Source: Pichia pastoris
Amino Acid Sequence
Species: Human

Specifications

Our Abpromise guarantee covers the use of ab73160 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications: SDS-PAGE
Purity: > 95 % SDS-PAGE.

Form: Liquid

Additional notes

Recombinant collagens are essentially identical to the native collagen protein thereby reducing the risk of inflammation, immune response, and disease as compared to animal-sourced collagen.

Preparation and Storage

Stability and Storage: Shipped at 4°C. Store at +4°C.
Component: 10mM HCl
Preservatives: none.

General Info

Function: Collagen type III occurs in most soft connective tissues along with type I collagen.
**Involvement in disease**

Defects in COL3A1 are a cause of Ehlers-Danlos syndrome type 3 (EDS3) [MIM: 130020]; also known as benign hypermobility syndrome. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS3 is a form of Ehlers-Danlos syndrome characterized by marked joint hyperextensibility without skeletal deformity.

Defects in COL3A1 are the cause of Ehlers-Danlos syndrome type 4 (EDS4) [MIM: 130050]. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS4 is the most severe form of the disease. It is characterized by the joint and dermal manifestations as in other forms of the syndrome, characteristic facial features (acrogeria) in most patients, and by proneness to spontaneous rupture of bowel and large arteries. The vascular complications may affect all anatomical areas.

Defects in COL3A1 are a cause of susceptibility to aortic aneurysm abdominal (AAA) [MIM: 100070]. AAA is a common multifactorial disorder characterized by permanent dilation of the abdominal aorta, usually due to degenerative changes in the aortic wall. Histologically, AAA is characterized by signs of chronic inflammation, destructive remodeling of the extracellular matrix, and depletion of vascular smooth muscle cells.

**Sequence similarities**

- Belongs to the fibrillar collagen family.
- Contains 1 fibrillar collagen NC1 domain.
- Contains 1 VWFC domain.

**Post-translational modifications**

- Proline residues at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.
- O-linked glycan consists of a Glc-Gal disaccharide bound to the oxygen atom of a post-translationally added hydroxyl group.

**Cellular localization**

- Secreted > extracellular space > extracellular matrix.

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