Human Collagen III

Synonyms: Collagen alpha-1(III) chain, Type III Collagen, COL3A1, EDS4A, FLJ34534.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order#	Lot#	Expiry Date
1 g	4680.953.188		
5 g	4680.953.588		
10 g	4680.953.108		

Please enquire for bulk quantities and other vial sizes.

Description

Recombinant Human Collagen III derived from yeast is a 55kDa protein consisting of repeated sequences of Alanine, Asparagine, Glutamine, Glutamic Acid, Glycine, Lysine and Serine in various combinations. It is Anima derived com-ponent free (ADCF).
Type III collagen, which adds structure and strength to connective tissues, is found in many places in the body, espe-cially skin, lung, intestinal walls, and the walls of blood vessels. Collagen III is initially produced as procollagen, a protein consisting of three pro-alpha1(III) chains that form the triple-stranded, rope-like molecule. After being synthe-sized, the procollagen molecule is modified by the cell. Enzymes modify the amino acids lysine and proline in the protein strands by adding chemical groups that are necessary for the strands to form a stable molecule and then later to crosslink to other molecules outside the cell. Other enzymes add sugars to the protein. The type III procollagen molecules are released from the cell and are processed by enzymes that clip small segments off either end of the molecules to form mature collagen. The mature collagen molecules assemble into fibrils. Cross-linking between molecules produces a very stable fibril, contributing to collagens tissue strengthening function.

- **Biological Activity** See below
- **Source** *Yeast*
- **Purity** ≥ 95 % (SDS-PAGE); Total aerobic count: ≤ 10 cfu/g
- **Endotoxin Level** ≤ 0.1 ng/µg (≤ 1 EU/µg)
- **Stabilizer** None
- **Buffer** None*
- **Physical State** Sterile filtered, lyophilized

Biological Activity

This human recombinant Collagen III is fully active in comparison with the functions of the natural human Collagen III, like for example promotion of cell growth, skin repair and wound healing, while it has low immunogenicity. In some cases, it has shown a higher efficiency than the natural Collagen III.

Reconstitution

We recommend reconstitution in water or PBS to concentrations between 1 mg/ml and 100 mg/ml. Please allow sufficient time to fully dissolve and prepare working aliquots at the highest suitable concentration.

Stability

Lyophilized Collagen III is stable for at least 3 months at room temperature in the original vial, if it is stored below 4°C and protected from humidity it is stable for at least 24 months. For stability reasons lyophilized Collagen III should generally be protected from humidity and heat.

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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