

# Type III Collagen (Human) (Solution)

Cat. No. PT005

Lot. No. (See product label)

### **Product Description**

This Type III Collagen product is isolated from human placenta and is purified using a multi-step process with approximately 85% Type III collagen with the remainder being comprised of Type I collagen. The product is supplied as a sterile solution with 10 mg at approximately 1 mg/mL in 0.01M HCI, pH 2. Type III collagen product is provided in a user-friendly packaging for use and storage. This Type III collagen product is sterile filtered and is supplied as a ready to use solution.

Type III Collagen provides structure and strength to connective tissue, is found many places in the body, especially 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 synthesized, 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. 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 collagen's tissue strengthening function.

# **Application**

Type III Collagen is typically used as a thin coating on tissue culture surfaces or as a control.

#### FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

www.matexcel.com/hydrogel

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State	Solution
<b>Biological Source</b>	Human
Sterilization Method	Filtration
Storage/Stability	2-10 °C

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