Native Porcine Collagen Type I and III Protein

Cat. No. Collagen Type I & III-07P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified type I & III native porcine collagen from pig's tissue. Highest quality collagen for research use.
Species	Porcine
Source	Porcine Tissue
Description	Type I collagen is the most abundant collagen and is found in connective tissues including tendon, ligament, dermis and blood vessel. It is the major component and the primary determinant of tensile strength of the extracelluar matrix (ECM). It is widely used as a thin layer on tissue-culture surfaces to enhance the attachment and proliferation of a variety of cells including endothelial cells, fibroblasts, hepatocytes, epithelial cells etc. In addition, collagen I can self-assemble into a 3-D superamolecular gel in vitro, making it an ideal biological scaffold to promote more in vivo-like cellular morphology and function. Type III collagen is the second most abundant collagen in tissues and is found most commonly in tissues exhibiting elastic properties such as skin, lungs, intestinal walls and walls of blood vessels. It is a homotrimer comprised of three alpha-1 chains and resembles other fibrillar collagens in structure and function. It is synthesized as procollagen, similary to collagen I, but the N-terminal propeptide remains attached in the mature fibrillar type III form.
Form	Lyophilized, salt free, 10 mg/vial

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Purity	Porcine collagen type I - 45% Porcine collagen type III - 45% Porcine collagen type IV - 10% Porcine collagen type V - below 1% Non-collagen proteins - below 0.5%
Applications	Used for coating material for cell culture studies. May not be suitable for 3-D gel formation.
Storage	Collagen dissolved in acetic acid is stable at 4 centigrade for 1 month. Lyophilized collagen long term storage (2 years) at -20 centigrade or lower.
Reconstitution	Use 0.5 M acetic acid, pH 3.0. Dissolved collagen retains immunologic properties of native collagen. Structure of native collagen confirmed by ability to form microfibrils.

GENE INFORMATION

Official Symbol	Collagen Type I and III
Synonyms	COL1A1; COL1A2; COL3A1; Collagen type III, alpha 1; osteogenesis imperfecta; Collagen Type I and III

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