COL1A1
Recombinant Human Collagen Type I

Catalog No.	CRC158A	**Quantity:**	10 mg
	CRC158B		50 mg
	CRC158C		100 mg

Alternate Names: OI4, alpha 1 type I collagen, collagen alpha 1 chain type I, collagen of skin, tendon and bone, alpha-1 chain, pro-alpha-1 collagen type 1

Description: DNA sequences encoding the human proalpha1(I), proalpha2(I) and both alpha and beta subunits of prolyl hydroxylase were co-expressed in the yeast Pichia pastoris. Procollagen I was converted into mature collagen by a controlled proteinase digestion. Collagen, a major component of the extracellular matrix, is a fibrous protein that provides tensile strength to tissues giving them structural integrity. Collagen and its derivative, gelatin, have been widely used in medical, pharmaceutical and consumer products for more than 100 years. The supply of these materials, created from animal remains, is both abundant and inexpensive. However, most formulations are not highly purified and have the potential to cause an inflammatory reaction in some product users. In addition, concerns have been raised over the last several years about the potential for contamination of bovine products with the agent that causes mad cow disease and its human variant, Creutzfeldt-Jakob Disease.
Animal collagens are subject to extensive modifications that continue over the life of the molecule in the extracellular space. These differences influence both the extractability of collagens from tissue and the biophysical characteristics of these collagens. As a result, collagens isolated from tissues exhibit significant lot-to-lot variability and, as bulk materials, are often analytically intractable.
Products that contain animal-derived collagen can induce potentially harmful inflammatory or immune responses in humans and pose risk of contamination with viruses or prions, potentially life-threatening pathogens. 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.

Gene ID: 1277

Source: Pichia pastoris.

Formulation: The protein solution in 0.01M HCl.

Purity: Greater than 99.0% as determined by SDS-PAGE.

Physical Appearance: Sterile Filtered colorless solution.

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Storage & Stability: Collagen-I should be stored at 2-8°C.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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