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Product Information

Collagen from rat tail

Product Number **C8897**

Storage Temperature 2-8 °C

Product Description

CAS Number: 9007-34-5

This collagen is Bornstein and Traub Type I, not to be confused with Sigma's catalog type which is an organizational placeholder. Type I collagen is a component of skin, bone, tendon, and other fibrous connective tissues. Type I collagen differs from other collagens by their low lysine hydroxylation and low carbohydrate composition.

Collagen breaks down metabolically in the body to release N-telopeptide, which is the N-terminus of collagen. There is also C-telopeptide, which is presumably the C-terminus. N-telopeptide is released in urine, and its detection in diagnostic tests is used to screen for osteoporosis.

Although different types of collagen exist, they are all composed of molecules containing three polypeptide chains arranged in a triple helical conformation. Slight differences in the primary structure (amino acid sequence) establish differences between the types. The amino acid sequence of the primary structure is primarily a repeating motif with glycine in every third position and proline or 4-hydroxyproline frequently preceding the glycine residue.^{1,2}

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is an acid soluble collagen. It can be dissolved in water with acetic acid added to pH 3.0 (5 mg/ml), yielding an opalescent, colorless solution.

References

1. Tanzer, M. L., Cross-linking of collagen. *Science*, **180**, 561-566 (1973).
2. Bornstein, P., and Sage, H., *Ann. Rev. Biochem.*, **49**, 959 (1980).

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