Collagen
from bovine achilles tendon

Product Number C9879
Storage Temperature 2-8 °C

Product Description
CAS Number: 9007-34-5

This product is suitable for use as a substrate for collagenase.\(^1\) It is prepared by modification of the method of Einbinder and Schubert and is not suitable for use in coating glassware.\(^2\)

This collagen is Bornstein and Traub Type I, not to be confused with Sigma’s catalog type which is an organizational placeholder. The Type I classification of 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 mainly a repeating motif with glycine in every third position and proline or 4-hydroxyproline frequently preceeding the glycine residue.\(^3,4\)

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

Preparation Instructions
This collagen preparation is insoluble in water, aqueous buffers, and organic solvents.

References