

Product Information

Collagen from human placenta

Catalog Number **C4407**
Storage Temperature 2–8 °C

CAS RN 9007-34-5

Synonym: Bornstein and Traub Type III collagen, not to be confused with Sigma's catalog type which is an organizational placeholder.

Product Description

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}

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.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The lyophilized powder can be reconstituted in sterile 0.5 M acetic acid, water, or PBS to a concentration of 1 mg/mL. When using PBS or water for reconstitution, vortex for 1 hour at room temperature after a short sonication. The resulting mixture in PBS or water will be hazy to hazy with particles. Reconstitution in 0.5 M acetic acid yields a clear to hazy solution. A PBS solution is stable for at least 1 year at –20 °C.

Storage/Stability

Store the product at 2–8 °C.

References

1. Tanzer, M.L., Cross-linking of collagen. *Science*, **180**(86), 561-566 (1973).
2. Bornstein, P., and Sage, H., *Ann. Rev. Biochem.*, **49**, 959 (1980).

AA,EM,MWM,CMH,RXR,MAM 05/16-1