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Product Information

Collagen from human placenta
Bornstein and Traub Type IV

Catalog Numbers **C7521 and C5533**
Catalog Number C5533 is cell cultured tested
Storage Temperature –20 °C

Product Description

Collagen is one of the most abundant proteins in connective tissues and internal organs of mammals. It provides the tensile strength of the extracellular matrix (ECM) and is classified into a number of structurally and genetically distinct types. 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.[1-4]

Unlike most collagens, type IV collagen occurs only in basement membranes (BMs) and contains up to six genetically distinct α-chains, designated α1(IV) through α6(IV). During development, collagen IV is ubiquitously distributed in BMs. During the maturation process, this network gets partially replaced in a remarkably tissue specific manner, thereby, defining BM structure and function.[3]

Many different cells have been shown to bind to collagen IV including platelets, hepatocytes, keratinocytes, endothelial, mesangial, and pancreatic cells, as well as diverse tumor cells.[3] Type IV collagen has been found to play a key role in angiogenesis,[5] neurological diseases,[6] and metastasis.[7]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material 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. A PBS solution is stable for at least 1 year at –20 °C.

Storage/Stability

Store the products dessicated at –20 °C. Under these conditions the products retain activity for at least 3 years.

References

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5. Sudhakar, A., and Boosani, C.S., Inhibition of tumor angiogenesis by tumstatin: insights into signaling mechanisms and implications in cancer regression. Pharm. Res., **25**, 2731-2739 (2008).
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