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Product Information

Vitronectin, human
recombinant, expressed in HEK 293 cells
cell culture tested

Catalog Number **SRP3186**
Storage Temperature –20 °C

Synonyms: Serum-spreading factor, V75, VTN, s-protein, epiboin

Product Description

Vitronectin is a secreted glycoprotein which is synthesized in the liver.[1] It circulates primarily in monomeric form, but can undergo conformational change to a structure that forms disulfide linked multimers.[2] Vitronectin can efficiently bind to and incorporate into the extracellular matrix (ECM) of various human tissues supporting cell adhesion and differentiation, as well as regulating ECM composition and stability.[3] Within the matrix, vitronectin can support cell adhesion through binding to various integrins and other proteoglycans.[4] Additionally, recombinant vitronectin can function as a chemically defined matrix component in human embryonic stem cell renewal media.[5]

Recombinant human vitronectin is a 459 amino acid single chain monomeric protein, which migrates at an apparent molecular mass of 75 kDa by SDS-PAGE under reducing conditions.

The biological activity of recombinant human vitronectin was tested in culture by measuring the ability of immobilized vitronectin to support adhesion of CHO cells.

Purity: ≥95% (SDS-PAGE)

Purity: ≥95% (HPLC)

Endotoxin level: ≤1 EU/μg of vitronectin

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.

Storage/Stability

Store the lyophilized product at –20 °C. The product is stable for at least 2 years as supplied.

Preparation Instructions

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1–1.0 mg/mL. Do not vortex. This solution can be stored at 2–8 °C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at –20 °C to –80 °C.

References

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2. Xu, D. et al., Model for the three-dimensional structure of vitronectin: predictions for the multi-domain protein from threading and docking. *Proteins*, **44**, 312-320 (2001).
3. Preissner, K.T., Structure and biological role of vitronectin. *Annu. Rev. Cell Biol.*, **7**, 275-310 (1991).
4. Kim, S. et al., Extracellular matrix and cell signalling: the dynamic cooperation of integrin, proteoglycan and growth factor receptor. *J. Endocrinol.*, **209**, 139-151 (2011).
5. Braam, S.R. et al., Recombinant Vitronectin Is a Functionally Defined Substrate That Supports Human Embryonic Stem Cell Self-Renewal via αVβ5 Integrin. *Stem Cells*, **26**, 2257–2265 (2008).

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