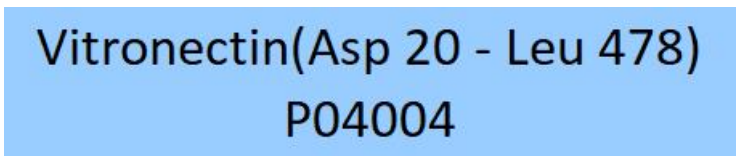
Synonym

VTN,V75,VN,Vitronectin,S-protein,Serum-spreading factor

Source

Human Vitronectin Protein, premium grade(VIN-H5214) is expressed from human 293 cells (HEK293). It contains AA Asp 20 - Leu 478 (Accession # P04004).
Predicted N-terminus: Asp 20
It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization



This protein carries no "tag".

The protein has a calculated MW of 52.3 kDa. The protein migrates as 67 kDa±3 kDa and 75 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.01 EU per μg by the LAL method.

Host Cell Protein

<0.5 ng/μg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/μg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

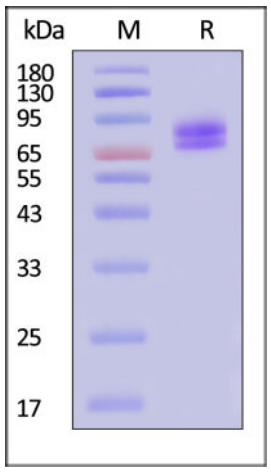
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

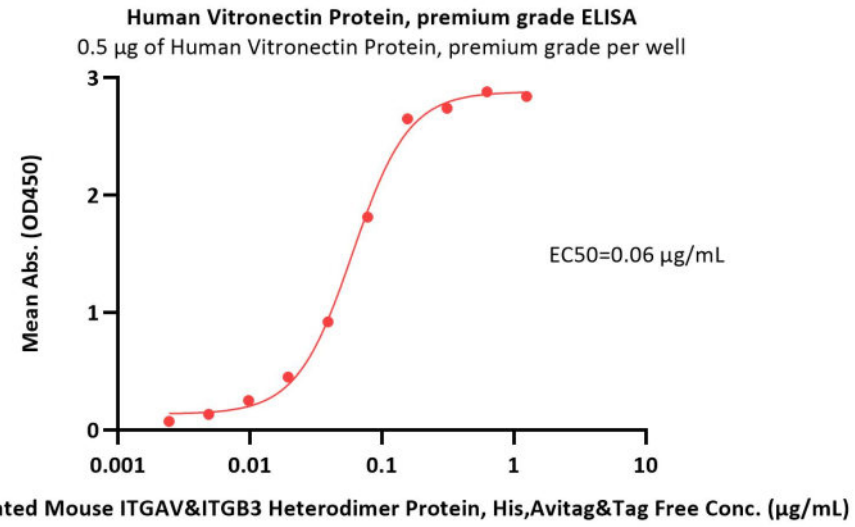
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human Vitronectin Protein, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



Immobilized Human Vitronectin Protein, premium grade (Cat. No. VIN-H5214) at 5 μg/mL (100 μL/well) can bind Biotinylated Mouse ITGAV&ITGB3 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT3-H82W3) with a linear range of 0.002-0.156 μg/mL (QC tested).

Background

Vitronectin is also known as S-protein, VN, VTN, V75. Vitronectin, a multifunctional glycoprotein, is involved in coagulation, inhibition of the formation of the membrane attack complex (MAC), cell adhesion and migration, wound healing, and tissue remodeling. The primary cellular source of vitronectin is hepatocytes. Blocking of Hic(a member of the pneumococcal surface protein C (PspC) family) by specific antiserum or genetic deletion significantly reduced pneumococcal binding to soluble and immobilised vitronectin and to Factor H, respectively. In addition, Vitronectin interact with glycosaminoglycans and proteoglycans. Is recognized by certain members of the integrin family and serves as a cell-to-substrate adhesion molecule. Inhibitor of the membrane-damaging effect of the terminal cytolytic complement pathway.

Clinical and Translational Updates