Synonym

Fibronectin,FN1,CIG,ED-B,FINC,FN,FNZ,GFND,GFND2,LETS,MSF

Source

Fibronectin fragment, premium grade(FIN-H5113) is expressed from E. coli cells. It contains AA Pro 1361 - Ser 1637 & Ala 1812 - Thr 2107 (Accession # P02751-15).

Predicted N-terminus: Met

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 62.6 kDa . The protein migrates as 55-60 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per μg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in 12.5 mM Sodium citrate, pH6.2 with Sucrose 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

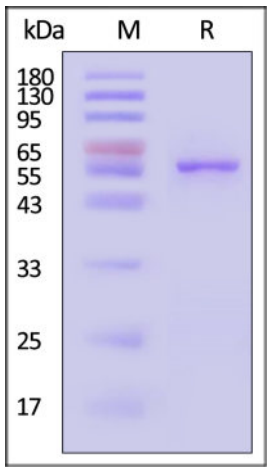
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

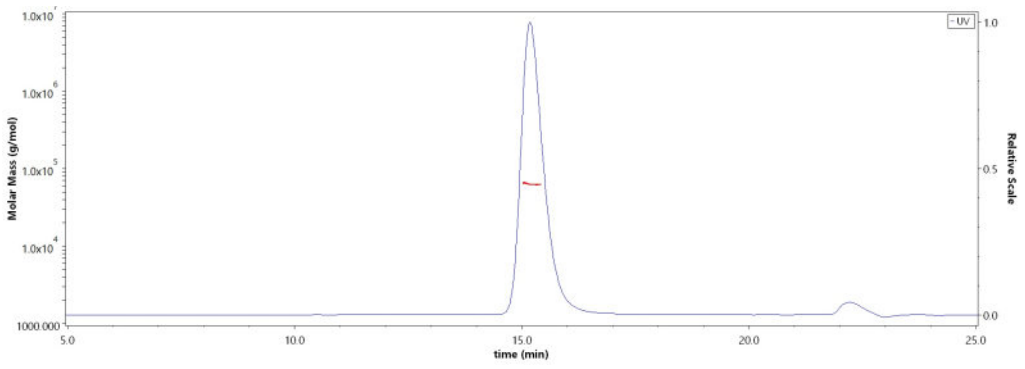
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Fibronectin fragment, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

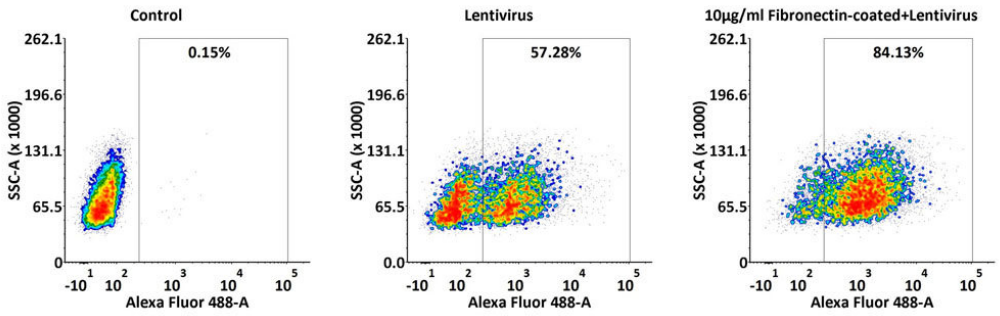
SEC-MALS



The purity of Fibronectin fragment, premium grade (Cat. No. FIN-H5113) is more than 95% and the molecular weight of this protein is around 55-70 kDa verified by SEC-MALS.

Report

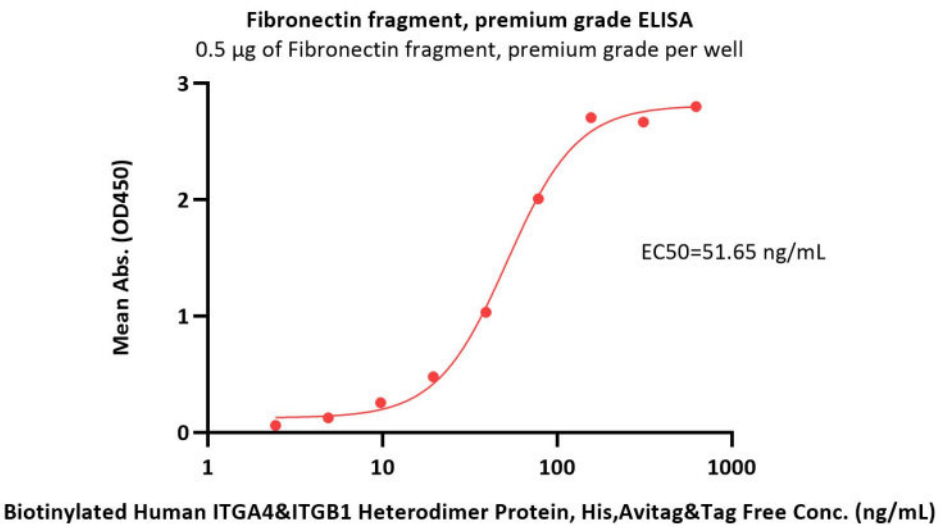
Bioactivity-FACS



2e5 of Jurkat cells were transfected with pLenti-CMV-EGFP-puro-Amp for 48hrs in the presence or absence of Fibronectin fragment, premium grade (Cat. No. FIN-H5113)-Coated. The fluorescence of GFP were detected with FACS, Alexa Fluor 488 signal was used to evaluate the expression of GFP+ Jurkat cells (Routinely tested). Please click the button for more detailed protocols.

View Protocol

Bioactivity-ELISA



Immobilized Fibronectin fragment, premium grade (Cat. No. FIN-H5113) at 5 μg/mL (100 μL/well) can bind Biotinylated Human ITGA4&ITGB1 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT1-H82W1) with a linear range of 2-78 ng/mL (QC tested).

Background

Fibronectin (Fn) is a glycoprotein whose size ranges from 230 to 270 kDa and usually exists as a dimer, covalently linked by a pair of disulfide bonds at the C-termini. Each monomer consists of three repeating units: 12 Type I, 2 Type II, and 15–17 Type III domains which combined account for 90% of the FN sequence. The extracellular matrix (ECM) plays a key role as both structural scaffold and regulator of cell signal transduction in tissues. Fibronectin is one of the major ECM proteins in the trabecular meshwork (TM). It is found in the sheath material surrounding the elastin tendons that enter the TM from the ciliary muscle within the ciliary body. In times of ECM assembly and turnover, cells upregulate assembly of the ECM protein, FN. FN is assembled by cells into viscoelastic fibrils that can bind upward of 40 distinct growth factors and cytokines. These fibrils play a key role in assembling a provisional ECM during embryonic development and wound healing. Fibril assembly is also often upregulated during disease states, including cancer and fibrotic diseases.

Clinical and Translational Updates