

Synonym

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

Source

Recombinant Fibronectin fragment, premium grade(FIN-H5116) 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.*

*GMP-FINH18 is the GMP version of this FIN-H5116. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stag to later clinical phases.*

Molecular Characterization



This protein carries no "tag".

The protein has a calculated MW of 62.6 kDa. The protein migrates as 60 kDa±3 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.

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.

>90% as determined by SEC-HPLC.

Formulation

Supplied as 0.2 µm filtered solution in 12.5 mM Citric acid, pH6.2 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

*This product is supplied and shipped with dry ice, please inquire the shipping cost.*

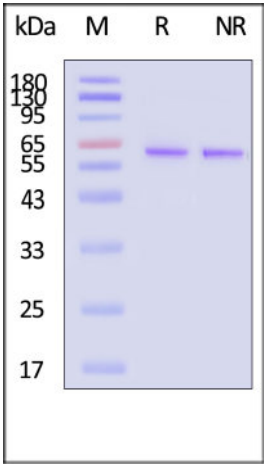
Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

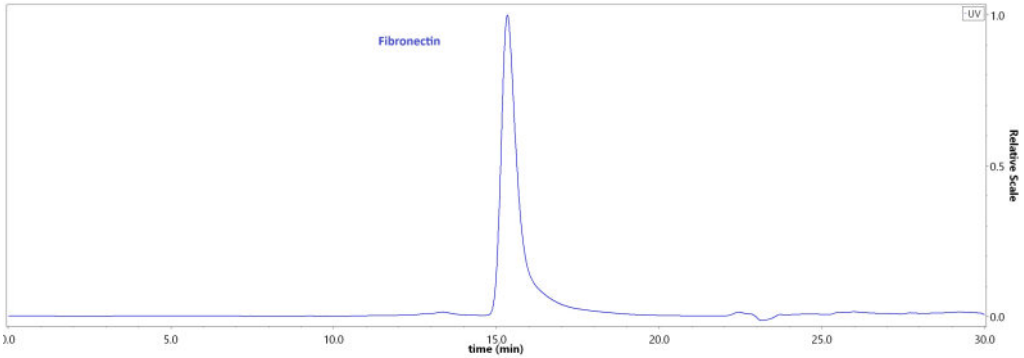
- 20°C±10°C for 12 months under sterile conditions.

SDS-PAGE



Recombinant Fibronectin fragment, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with

SEC-HPLC



The purity of Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) was greater than 90% as determined by SEC-HPLC.



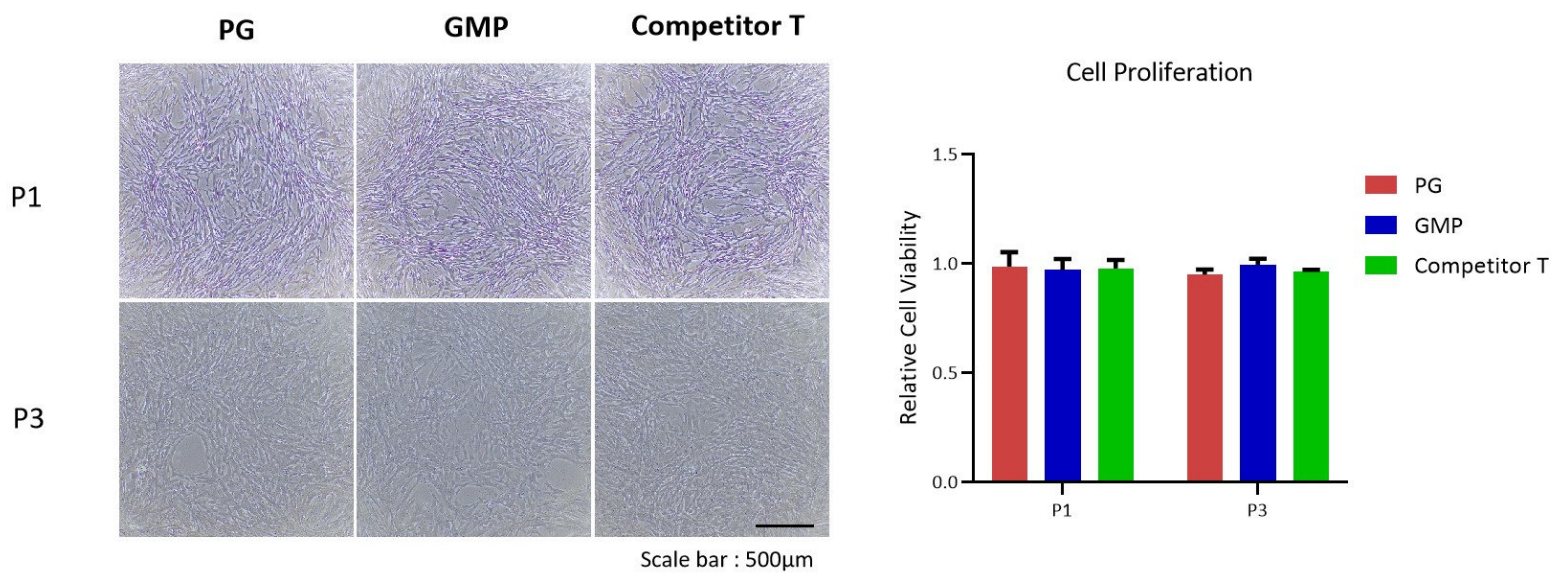
Recombinant Fibronectin fragment, premium grade

Catalog # FIN-H5116

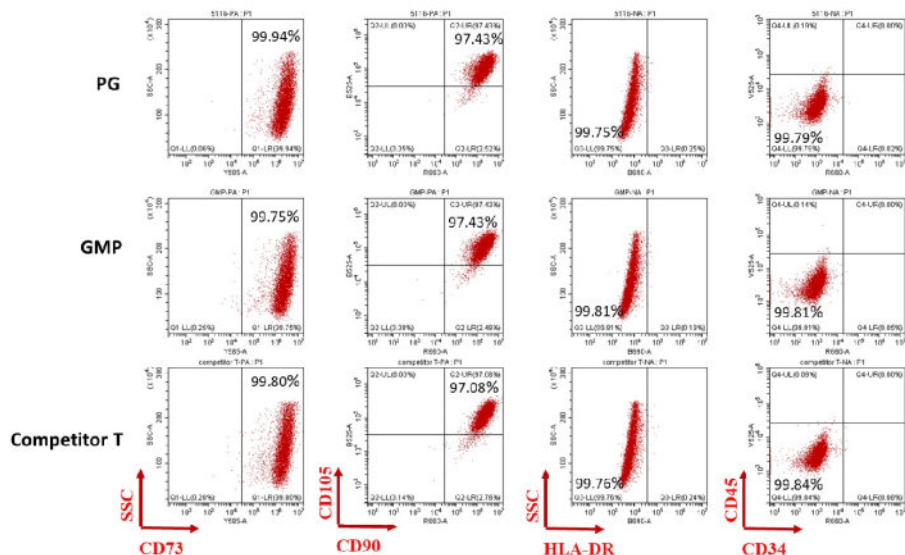


Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Application Data



Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) could promote mesenchymal stem cell attachment and proliferation in several passages, comparable with Competitor T. The bioactivity of Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) is similar to GMP Recombinant Human Fibronectin fragment (Cat. No. GMP-FINH18).



Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) could maintain the stemness of MSC in several passages, with high expression of MSC markers CD73, CD90 and CD105 and negative expression of HLA-DR, CD34 and CD45. The stemness ability of Recombinant Fibronectin fragment, premium grade (Cat. No. FIN-H5116) is comparable with Competitor T and similar to GMP Recombinant Human Fibronectin fragment (Cat. No. GMP-FINH18).

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.

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