Recombinant Human Fibronectin Fragment GMP (rPrimeNectin GMP)

PrimeGene Technical DataSheet

Catalog Number:	GMP-606-09
Source:	*Escherichia coli*
Molecular Weight:	Approximately 62.6 kDa, a single non-glycosylated polypeptide chain containing 574 amino acids.
Size:	1 mg/5 mg
Purity:	> 95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Measured by its ability to support cell attachment and spreading when used as a substratum for cell culture. In this application, the recommended concentration for this effect is typically 1-5 μg/cm^2. Fibronectin can also be added to the media to support cell spreading at a concentration of 0.5-50 μg/mL.
Physical Appearance:	Sterile filtered white lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM Tris-HCl, 150 mM NaCl, 5% Trehalose, 0.02% Tween-20, pH 8.5.
Endotoxin:	Less than 0.1 EU/μg of rPrimeNectin GMP as determined by LAL method.
Sterility：	Negative.
Mycoplasma：	Negative.
Host Cell Protein:	Less than 0.05% when tested by ELISA.
Reconstitution:	Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile PBS to a concentration of 0.1-5.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 ℃. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● A minimum of 12 months from date of receipt, when stored at ≤ -20 ℃ as supplied. ● 1 month, 2 to 8 ℃ under sterile conditions after reconstitution. ● 3 months, -20 to -70 ℃ under sterile conditions after reconstitution. ● Refer to lot-specific CoA for the Expiry Date.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. **NOT FOR HUMAN USE.**
Quality Statement:	**The manufacturing and testing of these products comply with ICH Q7 guidelines.**

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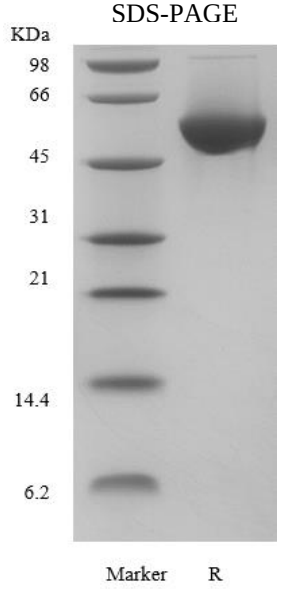
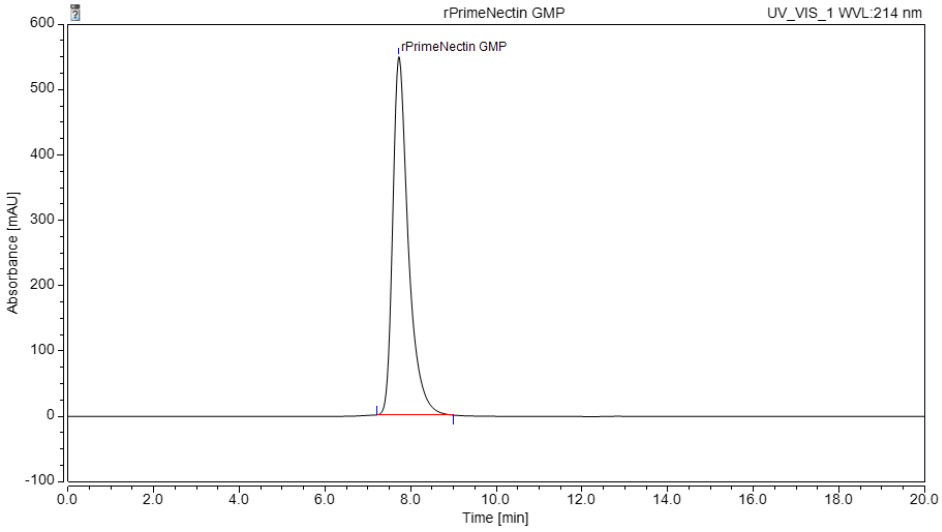
SDS-PAGE



HPLC



Background:

Recombinant PrimeNectin is a modified recombinant human fibronectin fragment. Fibronectin is a large modular glycoprotein and a ligand for many molecules including fibrin, heparin, chondroitin sulfate, collagen/gelatin, and integrins. It is involved in multiple cellular processes such as cell adhesion/migration, blood clotting, morphogenesis, tissue repair, and cell signaling. Fibronectin contains functional domains: the cell-binding domain (C-domain), heparin-binding virus adhesion domain (H-domain), and CS-1 sequence. PrimeNectin can enhance retroviral-mediated gene transduction by aiding the co-localization of target cells and virions. The viral particle can bind to the virus adhesion area (H-domain) of fibronectin, and target cells bind mainly through the interaction of cell surface integrin receptor VLA-5 and VLA-4 with the fibronectin C-domain and CS-1 site, respectively. So that it can close to the cells and viruses, to improve the efficiency of virus infection. When PrimeNectin is coated on the surface of cell culture dish, it significantly enhances the transfection ability of mammalian and insect cells.

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