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Recombinant Human Fibronectin/CIG/FN1 Protein

Catalog No.: RP01414 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	2335	P02751

Tags
C-His

Synonyms
FN1;CIG;ED-B;FINC;FN;FNZ;GFND;GFND2;LETS;MSF;fibronectin

Product Information

Source	Purification
HEK293 cells	≥ 90 % as determined by SDS-PAGE.

Calculated MW	Observed MW
10.70 kDa	15-30 kDa

Endotoxin
Please contact us for more information.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

Fibronectin (FN) is a glycoprotein component of the extracellular matrix of the extracellular matrix (ECM) with roles in embryogenesis, development, and wound healing. More recently, FN has emerged as player in platelet thrombus formation and diseases associated with thrombosis including vascular remodeling, atherosclerosis, and cardiac repair following a myocardial infarct. Each monomer of FN consists of three types of homologous repeating units, that is 12 type I repeats, two type II repeats and 15-17 type III repeats. The occurrence of multiple isoforms results from alternative mRNA splicing of the ED-A, ED-B and III-CS regions, and subsequent post-translational modification. As an ECM component and one of the primary cell adhesion molecules, Fibronectin can be a ligand for fibrin, heparin, chondroitin sulfate, collagen/gelatin, as well as many integrin receptors through which FN mediates the variety of cellular signaling pathways. The study of solid human tumors showed among the early signs of malignant transformation the fragmentation of pericellular FN, concommitent with the increase of its production by the peritumoral stroma. These results should encourage further investigations concerning the potential importance of Fn production and breakdown during cancer progression. FN1 expression has been described to increase significantly from the morula towards the early blastocyst stage, suggesting that FN1 may also be involved in early blastocyst formation. The fragment 2 of FN comprises the first 7 FN type III repeats and is suggested to be important for self association during fibril growth via the key module III2.

Basic Information

Description
Recombinant Human Fibronectin/CIG/FN1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asn1722-Thr1811) of human Fibronectin (Accession #NP_997647.1) fused with a 6×His tag at the C-terminus.

Bio-Activity
Measured by the ability of the immobilized protein to support the adhesion of NIH-3T3 mouse embryonic fibroblast cells.When cells are added to Fibronectin coated plates (2.5 μg/mL and 100 μL/well), approximately 30%-40% cells will adhere specifically after 30 minutes at 37℃.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

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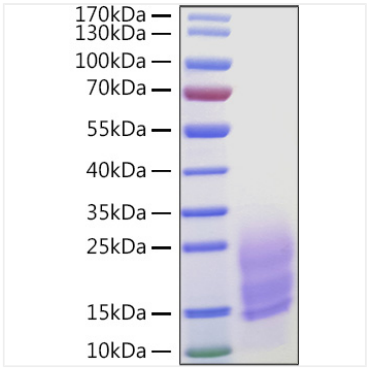
Validation Data



Recombinant Human Fibronectin/CIG/FN1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.