

Recombinant Human Fibronectin/CIG/FN1 Protein

Catalog No.: RP01414

Sequence Information

Species **Gene ID**
Human 2335

Swiss Prot **Tags**
P02751 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

< 1 EU/μg of the protein by LAL
method.

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 stabilizer
(e.g. 0.1% BSA, 5% HSA, 10% FBS
or 5% Trehalose), and aliquot the
reconstituted protein solution to
minimize free-thaw cycles.

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, concomitant 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.

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°C.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

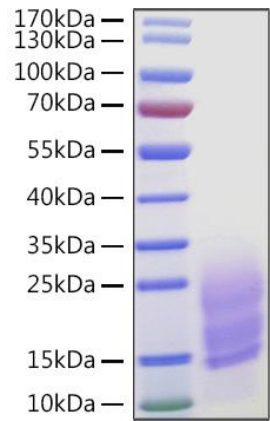
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Validation Data



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