



Recombinant Protein Technical Manual

Recombinant Human Fibronectin/FN Protein (His Tag)(Active)

RPES2409

Product Data:

Product SKU: RPES2409

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: CAD91166

Protein Information:

Molecular Mass: 73.2 kDa

AP Molecular Mass: 8500 kDa

Tag: C-His

Bio-activity: Measured by the ability of the immobilized protein to support the adhesion of NIH-3T3 mouse embryonic fibroblast cells. When 5×10^4 cells/well are added to CD4-coated plates (1.25µg/mL and 100µL/well), approximately 50%-80% will adhere specifically after 30 minutes at 37°C.

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, pH 7.2

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Ser 607-Pro 1265

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 157 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.