abcam

Product datasheet

Native Human Fibronectin protein ab80021

1 Image

Description

Product name Native Human Fibronectin protein

Purity > 95 % SDS-PAGE.

Purified from human plasma

Expression system Native

Accession P02751

Protein length Full length protein

Animal free No

Nature Native

Species Human

Additional sequence information Molecular weight: the MW of the hetrodimer is 550 kDa

Specifications

Our **Abpromise guarantee** covers the use of **ab80021** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Lyophilized

Preparation and Storage

Stability and Storage Shipped at 4°C. After reconstitution store at -20°C. Avoid freeze / thaw cycles.

pH: 7.40

Constituents: 0.476% HEPES, 0.87% Sodium chloride

Reconstitution Reconstitute with 1.0 milliliters of water to achieve 2.0 mg/mL. Human Fibronectin is known for its

solubility issues. The best way to get this material into solution, after reconstitution, is to incubate in a 37°C water bath for at least 30 minutes. Typically this is sufficient, however a small amount of un-dissolved material may remain. If this is the case, a few gentle aspirations with a pipette is

recommended.

General Info

1

Function

Fibronectins bind cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization. Participates in the regulation of type I collagen deposition by osteoblasts.

Anastellin binds fibronectin and induces fibril formation. This fibronectin polymer, named superfibronectin, exhibits enhanced adhesive properties. Both anastellin and superfibronectin inhibit tumor growth, angiogenesis and metastasis. Anastellin activates p38 MAPK and inhibits

lysophospholipid signaling.

Tissue specificity

Plasma FN (soluble dimeric form) is secreted by hepatocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix. Ugl-Y1, Ugl-Y2 and Ugl-Y3 are found in urine.

Involvement in disease

Sequence similarities

Glomerulopathy with fibronectin deposits 2
Contains 12 fibronectin type-I domains.

Contains 2 fibronectin type-II domains.
Contains 16 fibronectin type-III domains.

Developmental stage

Ugl-Y1, Ugl-Y2 and Ugl-Y3 are present in the urine from 0 to 17 years of age.

Post-translational modifications

Sulfated.

It is not known whether both or only one of Thr-2064 and Thr-2065 are/is glycosylated.

Forms covalent cross-links mediated by a transglutaminase, such as F13A or TGM2, between a

glutamine and the epsilon-amino group of a lysine residue, forming homopolymers and heteropolymers (e.g. fibrinogen-fibronectin, collagen-fibronectin heteropolymers).

Phosphorylated by FAM20C in the extracellular medium.

Proteolytic processing produces the C-terminal NC1 peptide, anastellin.

Cellular localization

Secreted, extracellular space, extracellular matrix.

Images



SDS-PAGE - Native Human Fibronectin protein (ab80021)

Gel: Novex 4-12% Bis-Tris

Load Load: Human Fibronectin, 1 µg per lane in Non-reducing

(NR) and reducing (R) conditions.

Buffer: MOPS

MW Ladder: Myosin (191 kDa), Phosphorylase B (97 kDa), BSA

(64 kDa), Glutamic Dehydrogenase (51 kDa), Alcohol Dehydrogenase (39 kDa), Carbonic Anhydrase (28 kDa),

Myoglobin Red (19 kDa), Lysozyme (14 kDa)

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