abcam

Product datasheet

Human Fibronectin ELISA Kit ab108847

4 References 2 Images

Overview

Product name Human Fibronectin ELISA Kit

Detection method Colorimetric

Precision

Sample	n	Mean	SD	CV%	
Overall				4.9%	

Inter-assay

Intra-assav

Sample	n	Mean	SD	CV%
Overall				7%

Sample type Cell culture supernatant, Saliva, Milk, Urine, Tissue, Cell Lysate, Cerebral Spinal Fluid

Assay type Sandwich (quantitative)

Sensitivity = 4 ng/ml

Range 0.004 μg/ml - 1 μg/ml

Recovery 97.5 %
Assay time 3h 30m

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Abcam's Fibronectin Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is

 $designed \ for \ the \ quantitative \ measurement \ of \ Fibronectin \ levels \ in \ milk, \ urine, \ saliva, \ CSF, \ cell$

culture, cell lysate, and tissue samples.

A Fibronectin specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Fibronectin specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Fibronectin captured in plate.

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Get results in 90 minutes with Human Fibronectin ELISA Kit (<u>ab181419</u>) from our SimpleStep ELISA[®] range.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Platform Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Human Fibronectin Antibody	1 x 120µl
Chromogen Substrate	1 x 7ml
Fibronectin Microplate (12 x 8 well strips)	1 unit
Fibronectin Standard	1 vial
Sealing Tapes	3 units
Stop Solution	1 x 11ml

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

Glomerulopathy with fibronectin deposits 2 $\,$

Sequence similarities

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).

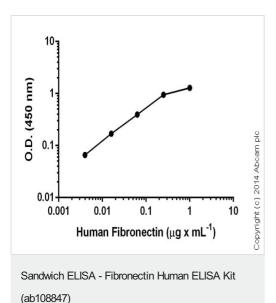
Phosphorylated by FAM20C in the extracellular medium.

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

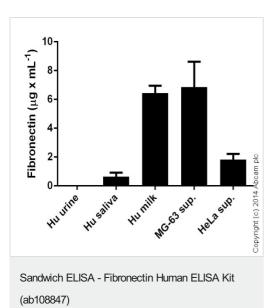
Cellular localization

Secreted, extracellular space, extracellular matrix.

Images



Standard curve: mean of duplicates (+/- SD) with background reads subtracted



Fibronectin measured in biological fluids and cell culture supernatants showing quantity (ug) per mL of tested sample. Human urine diluted 1-3 fold. Human saliva diluted 10-100 fold. Human milk diluted 100-1000 fold. Cell supernatants diluted 10-1000 fold.

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