abcam

Product datasheet

Mouse Fibronectin ELISA Kit ab210967

יילצעבע SimpleStep ELISA

2 References 画像数 10

製品の概要

製品名 Mouse Fibronectin ELISA Kit

検出方法 Colorimetric

再現性

サンプル N 平均値 SD CV% 5 2.3% serum

Inter-Assay(日差再現性)

Intra-Assay(同時再現性)

サンプル	N	平均値	SD	CV%
serum	3			4.4%

サンプルの種類

Cell culture supernatant, Urine, Serum, Plasma

アッセイタイプ

Sandwich (quantitative)

検出感度

251 pg/ml

検出範囲

0.63 ng/ml - 40 ng/ml

添加回収試験

特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Cell culture supernatant	102	101% - 103%
Urine	107	104% - 113%
Serum	119	117% - 123%
Hep Plasma	108	106% - 109%
EDTA Plasma	107	103% - 112%
Cit plasma	120	119% - 122%

全工程の試験時間

1h 30m

ステップ

One step assay

種交差性

交差種: Mouse 非交差種: Cow

製品の概要

Mouse Fibronectin ELISA Kit (ab210967) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Fibronectin protein in cell culture supernatant, plasma, serum, and urine. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Fibronectin with 251 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

特記事項

Fibronectin is a large glycoprotein present in the extracellular matrix and circulating plasma. Fibronectin is important in many cell adhesion and migration related processes, including wound healing, embryogenesis, nerve regeneration and maintenance of cell shape.

試験プラットフォーム

Pre-coated microplate (12 x 8 well strips)

製品の特性

保存方法

Store at +4°C. Please refer to protocols.

内容	1 x 96 tests	10 x 96 tests	1 x 384 tests
10X Mouse Fibronectin Capture Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Mouse Fibronectin Detector Antibody	1 x 600µl	1 x 6000µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	0 x 0 unit	1 unit
Antibody Diluent 4BR	1 x 6ml	10 x 6ml	1 x 6ml
Mouse Fibronectin Lyophilized Recombinant Protein	2 vials	2 x 10 vials	2 vials
Plate Seals	1 unit	1 x 10 units	1 unit

内容	1 x 96 tests	10 x 96 tests	1 x 384 tests
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml	1 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units	0 x 0 unit
Stop Solution	1 x 12ml	1 x 120ml	2 x 12ml
TMB Development Solution	1 x 12ml	1 x 120ml	2 x 12ml

機能

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.

組織特異性

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.

関連疾患

Glomerulopathy with fibronectin deposits 2

配列類似性

Contains 12 fibronectin type-II domains. Contains 2 fibronectin type-III domains. Contains 16 fibronectin type-IIII domains.

発生段階

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

翻訳後修飾

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).

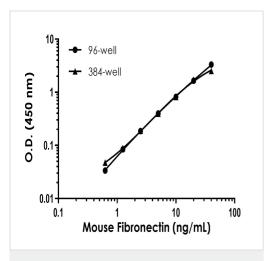
Phosphorylated by FAM20C in the extracellular medium.

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

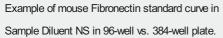
細胞内局在

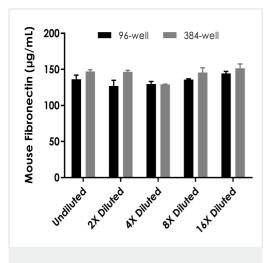
Secreted, extracellular space, extracellular matrix.

画像



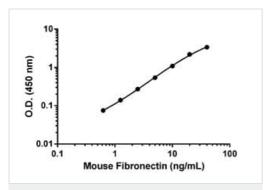
Example of mouse Fibronectin standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.





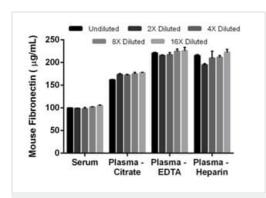
Interpolated concentrations of mouse Fibronectin in serum in 96-well vs. 384-well plates.

Interpolated concentration of native Fibronectin was measured in duplicate at different sample concentrations in 96-well vs. 384-well plates. Undiluted samples are 1:4,000. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.

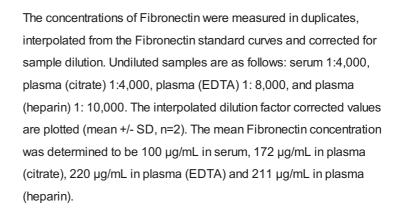


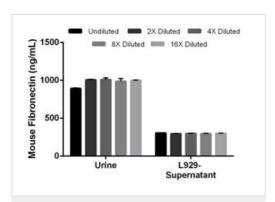
Example of mouse Fibronectin standard curve.





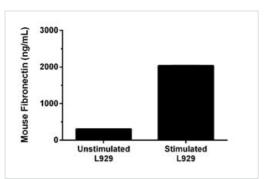
Interpolated concentrations of native Fibronectin in mouse serum and plasma samples.





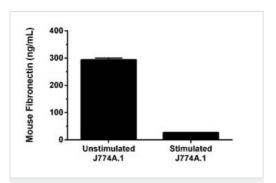
Interpolated concentrations of native Fibronectin in mouse urine and cell culture supernatant samples.

The concentrations of Fibronectin were measured in duplicates, interpolated from the Fibronectin standard curves and corrected for sample dilution. Undiluted samples are as follows: urine 5% and L929 supernatant 10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Fibronectin concentration was determined to be 979 ng/mL in urine and 300 ng/mL in L929 supernatant.



Comparison of secreted Fibronectin in unstimulated and PMA/PHA-stimulated L929 Cells

L929 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. Fibronectin was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated L929 and cell culture media. Measured values were interpolated from the Fibronectin Standard Curve diluted in Sample Diluent NS and corrected for dilution factor. Mean of duplicate values +/-SD are graphed: 300 ng/mL unstimulated, 2,209 ng/mL stimulated, and undetectable in media.

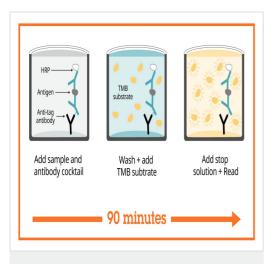


Comparison of secreted Fibronectin in unstimulated and PMA/PHA-stimulated J774A.1 Cells

J774A.1 cells were grown in the absence (unstimulated) or presence of Phorbol Myristate Acetate (PMA) and phytohemagglutinin (PHA) (stimulated) for 3 days. Fibronectin was measured in 2-fold diluted cell culture supernatants of unstimulated and PMA/PHA stimulated J774A.1 and cell culture media.

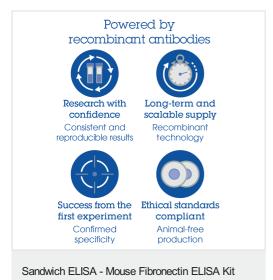
Measured values were interpolated from the Fibronectin Standard Curve diluted in Sample Diluent NS and corrected for dilution factor.

Mean of duplicate values +/-SD are graphed: 294 ng/mL unstimulated, 27.3 ng/mL stimulated, and undetectable in media.



Sandwich ELISA - Mouse Fibronectin ELISA Kit (ab210967)

SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



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To learn more about the advantages of recombinant antibodies see **here**.



To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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