

**APA593Mu01 10µg
Active Fibrillin 1 (FBN1)**

**Organism Species: *Mus musculus* (Mouse)
Instruction manual**

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Leu457~Asp634

Tags: N-terminal His-tag

Purity: >98%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl and 5% trehalose.

Original Concentration: 500µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 5.6

Predicted Molecular Mass: 13.4kDa

Accurate Molecular Mass: 21kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[USAGE]

Reconstitute in ddH₂O to a concentration ≤ 0.1 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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LVRY LCQNGRCIPT PGSYRCECNK GFQLDIRGEC IDVDECEKNP
CTGGECINNQ GSYTCHCRAG YQSTLTRTEC RDIDECLQNG RICNNGRCIN
TDGSFHCVCN AGFHVTRDGK NCEDMDECSI RNMCLNGMCI NEDGSFKCIC
KPGFQLASDG RYCKDINECE TPGICMNGRC VNTD
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[ACTIVITY]

Fibrillin 1 (FBN1) is a 230-kb gene with 65 coding exons that encode a 2,871-amino-acid long proprotein called profibrillin which is proteolytically cleaved near its C-terminus by the enzyme furin convertase to give fibrillin-1, a member of the fibrillin family, and the 140-amino-acid long protein hormone asprosin. FBN1 is a large, extracellular matrix glycoprotein that serves as a structural component of 10-12nm calcium-binding microfibrils. These microfibrils provide force bearing structural support in elastic and nonelastic connective tissue throughout the body. Besides, Fibulin 2 (FBLN2) has been identified as an interactor of FBN1, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse FBN1 and recombinant mouse FBLN2. Briefly, FBN1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to FBLN2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-FBN1 pAb, then aspirated and washed 3 times.

After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of FBN1 and FBLN2 was shown in Figure 1, and this effect was in a dose dependent manner.

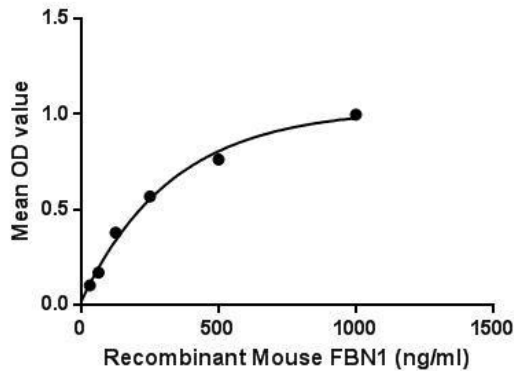


Figure 1. The binding activity of FBN1 with FBLN2.

[IDENTIFICATION]

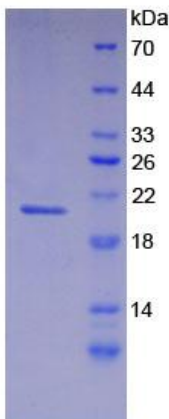


Figure 2. SDS-PAGE

Sample: Active recombinant FBN1, Mouse

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.