APA593Mu01 100μg
Active Fibrillin 1 (FBN1)
Organism Species: *Mus musculus* (Mouse)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[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 0.05% sarcosyl and 5% trehalose.
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 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 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]

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

[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℃. 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℃. 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.

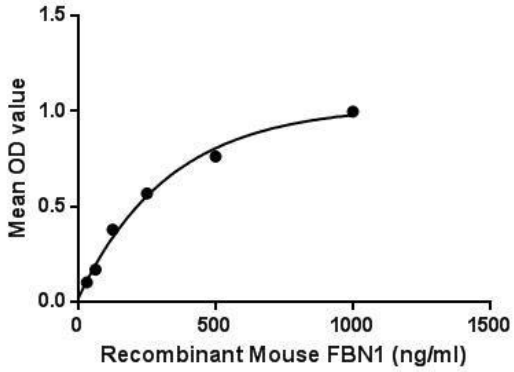

Figure 1. The binding activity of FBN1 with FBLN2.

[IDENTIFICATION]

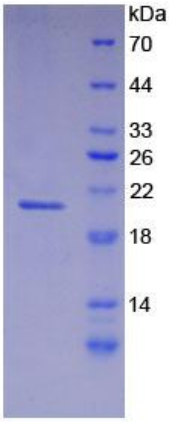

Figure 2. SDS-PAGE

Sample: Active recombinant FBN1, Mouse

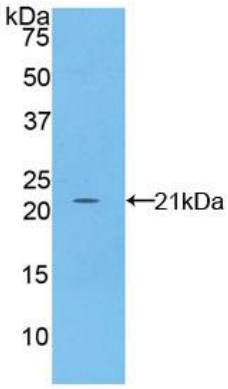

Figure 3. Western Blot

Sample: Recombinant FBN1, Mouse;

Antibody: Rabbit Anti-Mouse FBN1 Ab (PAA593Mu01)

[IMPORTANT NOTE]

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