

## Fibrillin 1 Active Protein | FBN1 active protein

Active Fibrillin 1 (FBN1)

|                               |                        |                                                     |
|-------------------------------|------------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA150097</b> | HOST<br><b>E. coli</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|------------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Fibrillin 1; Active Fibrillin 1 (FBN1); FBN; MASS; MFS1; OCTD; SGS; FBN1 active protein

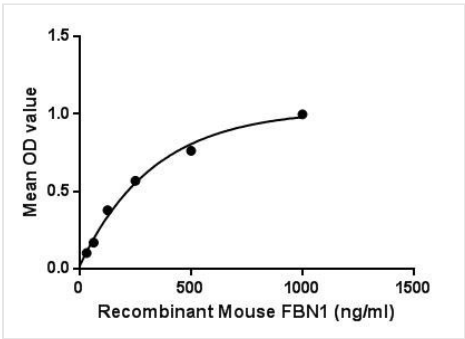
### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Purity/Purification                             | >98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Form/Format                                     | 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl and 5% trehalose.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Concentration                                   | 500ug/mL (varies by lot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Applicable Applications for FBN1 active protein | Activity Assay, Cell Culture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Source                                          | Prokaryotic expression.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Residues                                        | Leu457~Asp634                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Tags                                            | N-terminal His-tag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Endotoxin Level                                 | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Predicted isoelectric point                     | 5.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Phenomenon explanation                          | <p>The possible reasons that the actual band size differs from the predicted are as follows:</p> <ol style="list-style-type: none"> <li>1. Splice variants: Alternative splicing may create different sized proteins from the same gene.</li> <li>2. Relative charge: The composition of amino acids may affects the charge of the protein.</li> <li>3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.</li> <li>4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.</li> <li>5. Polymerization of the target protein: Dimerization, multimerization etc</li> </ol> |
| Reconstitute                                    | Reconstitute in ddH2O to a concentration $\leq 0.1$ mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Preparation and Storage                         | <p><b>Storage:</b><br/> Avoid repeated freeze/thaw cycles.<br/> Store at 2-8°C for one month.<br/> Aliquot and store at -80°C for 12 months.</p> <p><b>Stability Test:</b><br/> 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.</p>                                                                                                                                                  |

IMAGES

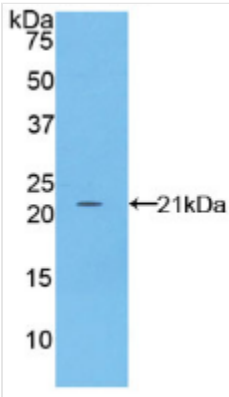
Sequence

LVRV LQNGRCIPT PGSYRCECNK GFQDIRGEC IDVDECEKNP  
CTGGECINNQ GSYTCHCRAG YQSTLRTEC RDIDECLQNG RICNNGRCIN  
TDGSFHCVCN AGFHVTRDGK NCEDMDECSI RNMLNGMCI NEDGSFKCIC  
KPGFQLASDG RYCKDINECE TPGICMNGRC VNTD

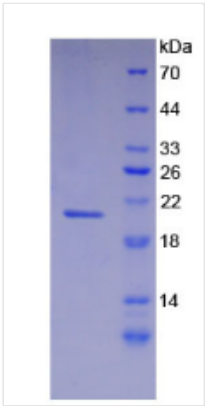


**Bioactivity**

Figure. The binding activity of FBN1 with FBLN2. 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 100L 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 50uL 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.



WB (Western Blot)  
Figure. Western Blot



SDS-PAGE  
Figure. SDS-PAGE

ADDITIONAL INFORMATION

|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| Product Categories/Family for FBN1 active protein | Signal transduction; Developmental science |
|---------------------------------------------------|--------------------------------------------|

NCBI AND UNIPROT INFORMATION

|                         |                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| NCBI GI #               | 2494284                                                                                                            |
| UniProt Accession #     | Q61554                                                                                                             |
| Molecular Weight        | Predicted Molecular Mass: 13.4kDa<br>Accurate Molecular Mass: 21kDa as determined by SDS-PAGE reducing conditions. |
| NCBI Official Full Name | Fibrillin-1                                                                                                        |
| UniProt Protein Name    | Fibrillin-1                                                                                                        |

|                            |            |
|----------------------------|------------|
| UniProt Gene Name          | Fbn1       |
| UniProt Synonym Gene Names | Fbn-1      |
| UniProt Entry Name         | FBN1_MOUSE |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-fbn1-active-protein/fibrillin-1/150097>