APC618Mu01 100μg
Active Microfibrillar Associated Protein 2 (MFAP2)
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: Asp32~Cys178
Tags: N-terminal His and GST Tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 4.8
Predicted Molecular Mass: 46.7kDa
Accurate Molecular Mass: 60kDa 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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8ºC for one month.

Aliquot and store at -80ºC 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 37ºC 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]

DHVQYNHYGDQIDNADYYDYQEVSPRTPEEQFQSQQQVQQEVIPAPTPEPA
AAGDLETEPTEPGPLDCREEQYPCTRLYSIHKPCKQCLNEVCFYSLRRVYVVNKE
ICVRTVCAHEELLRADLCRDKFSKCGVMAVSGLCQSVAASC

[ACTIVITY]

Microfibrillar Associated Protein 2 (MFAP2) is an O-glycosylated protein that is secreted into the extracellular space and matrix. It plays a crucial role in connecting with biglycan and elastin in a ternary complex, supporting and maintaining the distensibility of the juxtacanalicular region of collector channels.It is reported that BGN can be combined with MFAP2 to help maintain tissue elasticity and toughness, which is particularly important for tissues such as blood vessels and skin that require a high degree of flexibility and toughness.Thus a functional ELISA assay was conducted to detect the interaction of recombinant mouse MFAP2 and recombinant rat BGN. Briefly, MFAP2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to BGN-coated microtiter wells and incubated for 1h at 37℃.

Wells were washed with PBST and incubated for 1h with anti-MFAP2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant mouse MFAP2 and recombinant rat BGN was shown in Figure 1, the EC50 for this effect is 0.031ug/mL.

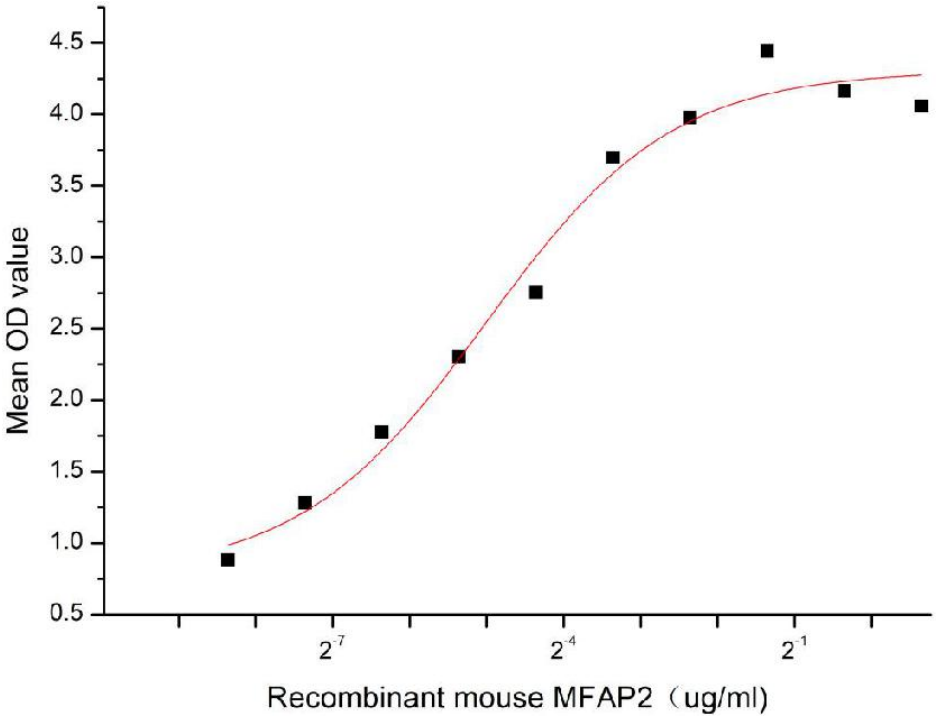

Figure 1. The binding activity of recombinant mouse MFAP2 and recombinant rat BGN

[IDENTIFICATION]

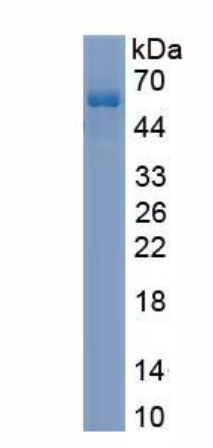

Figure 2. SDS-PAGE

Sample: Active recombinant MFAP2, 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.