

APB609Hu03 100µg

Active Thymosin Beta 4 (TMSB4X)

Organism Species: *Homo sapiens (Human)*

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: Met1~Ser44

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.

Applications: Cell culture; Activity Assays.

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

Predicted isoelectric point: 6.0

Predicted Molecular Mass: 35.1kDa

Accurate Molecular Mass: 36kDa as determined by SDS-PAGE reducing conditions.

[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 2-8°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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MSDKPDMAEI EKFDKSKLKK TETQEKNPLP SKETIEQEKQ AGES
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[ACTIVITY]

Thymosin beta 4 (T beta 4; also TB4X and Fx) is a 5.0 kDa member of the beta-thymosin family of molecules. It Plays an important role in the organization of the cytoskeleton. It is reported that TMSB4X can combinant with PFN1 to inhibit actin polymerization. A binding ELISA assay was conducted to detect the interaction of recombinant human TMSB4X and recombinant human PFN1. Briefly, TMSB4X were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to PFN1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TMSB4X 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 TMSB4X and PFN1 was shown in Figure 1, the EC50 for this effect is 2.98 ng/mL.

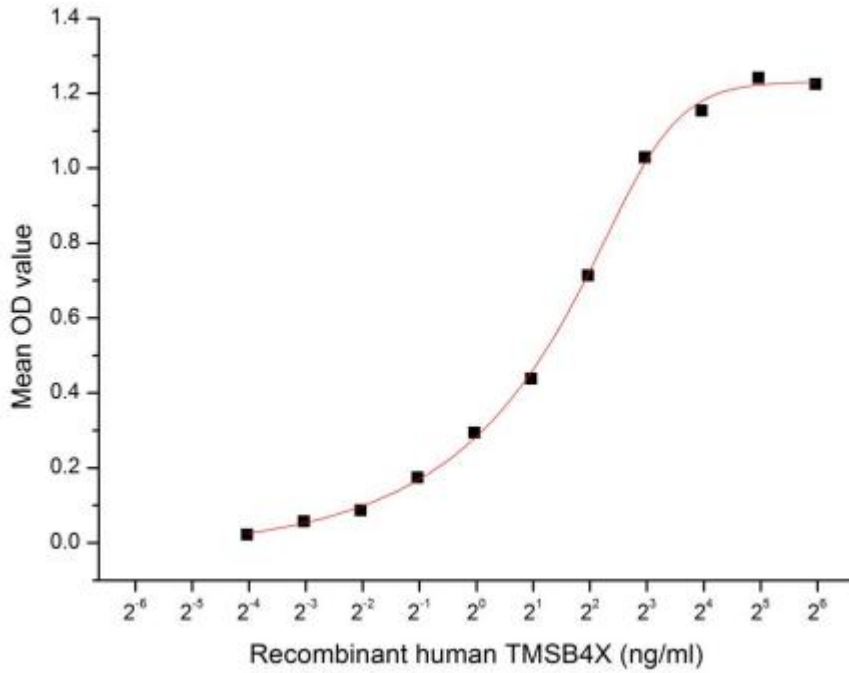


Figure 1. The binding activity of TMSB4X and PFN1

[IDENTIFICATION]

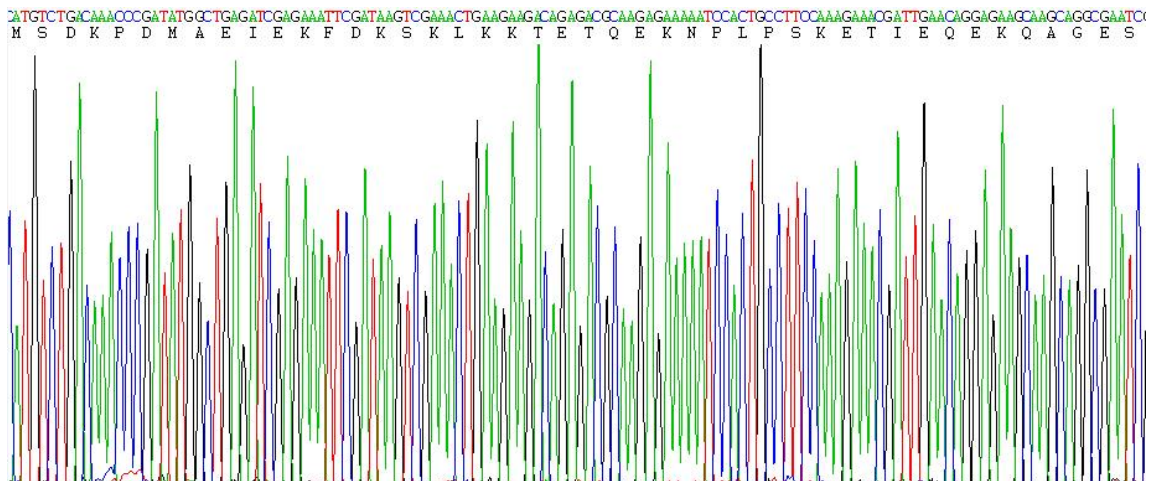


Figure 2. Gene Sequencing (extract)

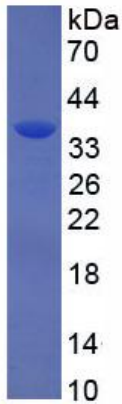


Figure 3. SDS-PAGE

Sample: Active recombinant TMSB4X, Human

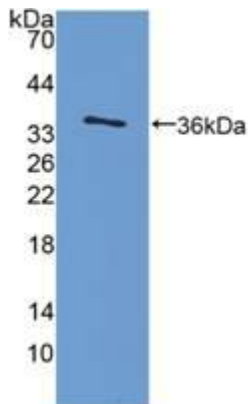


Figure 4. Western Blot

Sample: Recombinant TMSB4X, Human;

Antibody: Rabbit Anti-Human TMSB4X Ab (PAB609Hu03)

[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.