

APB182Hu01 100µg
Active Taxilin Alpha (TXLNa)
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: Lys328~Glu531

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: 7.8

Predicted Molecular Mass: 27.4kDa

Accurate Molecular Mass: 33kDa 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]

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                                KHK DLQQQLVDAK LQQAQEMLKE  
AEERHQREKD FLLKEAVESQ RMCELMKQQE THLKQQLALY TEKFEFQNT  
LSKSSEVFTT FKQEMEKMTK KIKKLEKETT MYRSRWESSN KALLEMAEEK  
TVRDKELEGL QVKIQRLEKL CRALQTERND LNKRVQDLA GGQGSGLTDSG  
PERRPEGPGA QAPSSPRVTE APCYPGAPST E
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[ACTIVITY]

Taxilin Alpha (TXLNa) also known as interleukin-14 (IL-14) is a cytokine that controls the growth and proliferation of both normal and cancerous B cells. TXLNa induces B-cell proliferation, inhibits antibody secretion, and expands selected B-cell subgroups. This interleukin is produced mainly by T cells and certain malignant B cells. Besides, Protein Disulfide Isomerase A3 (PDIA3) has been identified as an interactor of TXLNa, thus a binding ELISA assay was conducted to detect the interaction of recombinant human TXLNa and recombinant human PDIA3. Briefly, TXLNa were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to PDIA3-coated microtiter

wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TXLNa 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 TXLNa and PDIA3 was shown in Figure 1, and this effect was in a dose dependent manner.

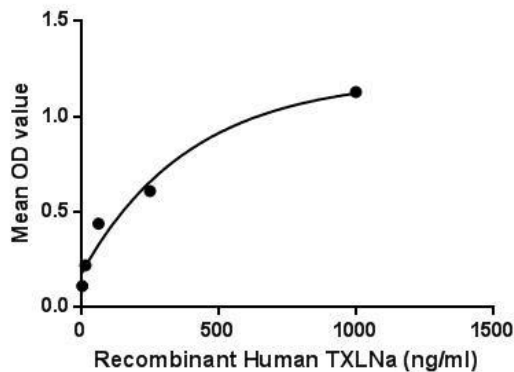


Figure 1. The binding activity of TXLNa with PDIA3.

[IDENTIFICATION]

KHKDLQQQLADAKLQQAQEMLKEAEERHQREKDFLLKEAVESQRHCELNKQQETHLKQQLALYTEKFEEFQNTISKSSSEVFTTFKQEMKMTK

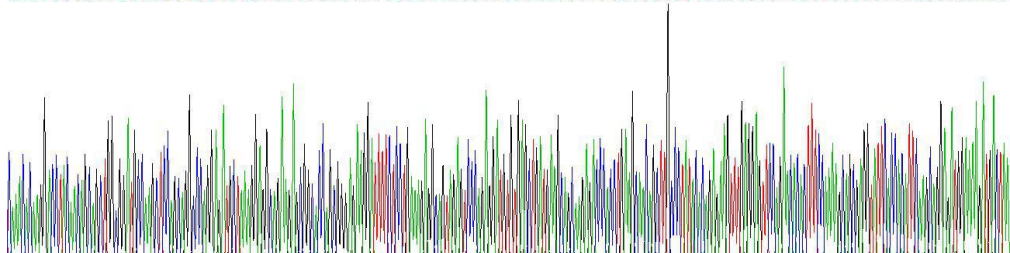


Figure 2. Gene Sequencing (extract)

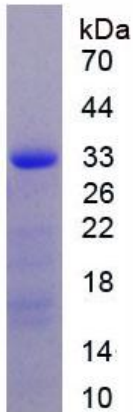


Figure 3. SDS-PAGE

Sample: Active recombinant TXLNa, Human

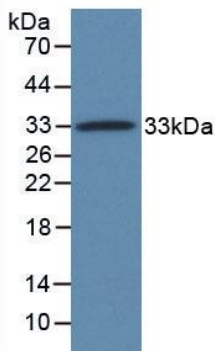


Figure 4. Western Blot

Sample: Recombinant TXLNa, Human;

Antibody: Rabbit Anti-Human TXLNa Ab (PAB182Hu01)

[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.