

**APB320Hu01 100µg**  
**Active Thymic Stromal Lymphopoietin (TSLP)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Tyr29~Gln159

**Tags:** N-terminal His-tag

**Purity:** >95%

**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:** Cell culture; Activity Assays.

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

**Predicted isoelectric point:** 9.6

**Predicted Molecular Mass:** 17.8kDa

**Accurate Molecular Mass:** 18kDa 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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YD FTNCDFEKIK AAYLSTISKD  
LITYMSGTKS TEFNNTVSCS NRPHCLTEIQ SLTFNPTAGC ASLAKEMFAM  
KTKAALAIWC PGYSETQINA TQAMKKRRKR KVTTNKCLEQ VSQQLGLWRR  
FNRPLLKQQ
```

## **[ ACTIVITY ]**

Thymic stromal lymphopoietin (TSLP) is a member of the IL-2 cytokine family and a distant paralog of IL-7. TSLP is a pleiotropic cytokine that acts on multiple cell lineages, including dendritic cells, T cells, B cells, neutrophils, mast cells, eosinophils and innate lymphoid cells, affecting their maturation, survival and recruitment. It is best known for its role in promoting type 2 immune responses such as in allergic diseases. Interleukin 13 (IL13) is a critical downstream element for TSLP-driven allergic inflammation. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human TSLP and recombinant bovine IL13. Briefly, TSLP was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to IL13-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-TSLP pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50  $\mu$ L stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human TSLP and recombinant bovine IL13 was shown in Figure 1, the EC50 for this effect is 0.11 ug/mL.

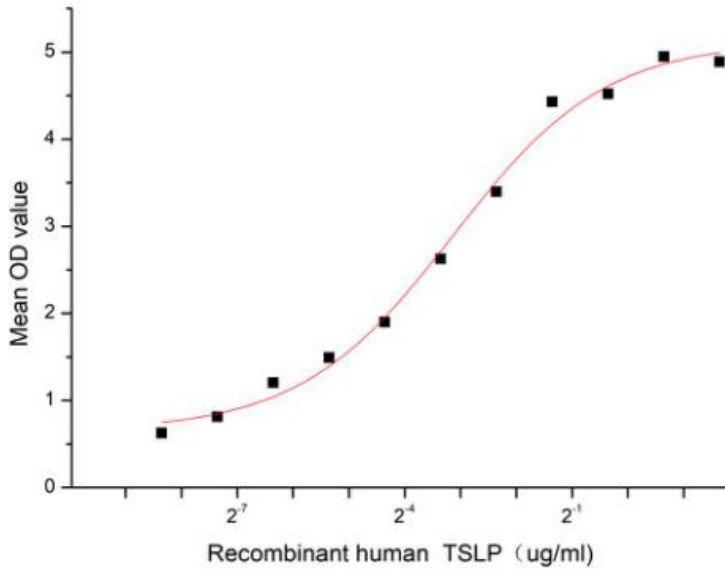


Figure 1. The binding activity of recombinant human TSLP and recombinant bovine IL13

## [ IDENTIFICATION ]

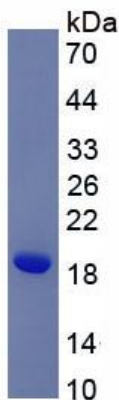


Figure 2. SDS-PAGE

Sample: Active recombinant TSLP, Human

## [ 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.