

Recombinant human TSLP

Mammalian cell-expressed human thymic stromal lymphopoietin (TSLP)

Cat. codes: rcyc-htslp-hs, rcyc-htslp-hs-5

<https://www.invivogen.com/cytokines-human-tslp-recombinant-protein>

For research use only

Version 25D02-NJ

PRODUCT INFORMATION

Contents

Recombinant human TSLP is provided lyophilized and is available in two quantities:

- **rcyc-htslp-hs:** 10 µg
- **rcyc-htslp-hs5:** 5 x 10 µg

Note: This product is sterile filtered prior to lyophilization.

- 1.5 ml endotoxin-free water

Storage and stability

- Recombinant human TSLP is shipped at room temperature. Upon receipt it should be immediately stored at -20 °C. Lyophilized product is stable for 12 months at -20 °C.
- Upon resuspension, prepare aliquots of recombinant human TSLP and store at 4 °C for up to 1 week or at -20 °C to -80 °C for up to 12 months.

Note: Avoid repeated freeze-thaw cycles.

Quality control

- Purity: ≥ 93% (SDS-PAGE)
- Endotoxin level: ≤ 0.1 EU/µg (LAL assay)
- The biological activity has been confirmed using [HEK-Blue™ TSLP cells](#) (see validation data sheet available on our website).

Characteristics

- Source: Mammalian; Chinese hamster ovary (CHO) cells
- Molecular mass: ~19.9 kDa (SDS PAGE)
- Carrier: Carrier-free
- Tag: Hexahistidine (His6)
- UniProt ID: Q969D9
- Protein size: 131 a.a. (Y29-Q159 with R127A and R130S mutations)
- Formulation: Phosphate buffer saline (pH 7.4), 5% saccharose
- Solubility: 100 µg/ml in water

TESTED APPLICATIONS

- Cellular assays

PRODUCT DESCRIPTION

Thymic stromal lymphopoietin (TSLP) is an interleukin-7 (IL-7)-like cytokine with multiple functions, including cell proliferation and survival. TSLP binds a heterodimeric transmembrane receptor comprising the shared IL-7 receptor alpha-chain (IL-7R α , CD127) and the TSLP receptor chain (TSLPR, CRLF2), a γ c-like subunit. It signals through tyrosine kinases of the Janus family (JAK1 and JAK2) and signal transducer and transcription activators (STATs), notably STAT5¹. TSLP is best known as a critical mediator of type 2 immune responses and a promoter of Th2 cell-mediated diseases (e.g. asthma)^{1,2}.

InvivoGen's recombinant human TSLP can be used for screening specific monoclonal antibodies using ELISA. In combination with [HEK-Blue™ TSLP reporter cells](#), it can be used to conduct release assays for compounds targeting the TSLP signaling.

InvivoGen's recombinant human TSLP features an hexahistidine (His6) tag, is carrier-free, and is produced in Chinese hamster ovary (CHO) cells. Production of recombinant proteins in mammalian cells ensures protein glycosylation and *bona fide* 3D structure.

1. Ebina-Shibuya R. & Leonard WJ., 2023. Role of thymic stromal lymphopoietin in allergy and beyond. *Nat Rev Immunol*, 23(1):24-37. 2. Schmitt P. et al., 2024. TL1A is an epithelial alarmin that cooperates with IL-33 for initiation of allergic airway inflammation. *J Exp Med*. 221(6) e20231236.

METHODS

Preparation of stock solution (100 µg/ml):

1. Add 100 µl endotoxin-free water (provided) to 10 µg of recombinant human TSLP and mix gently by pipetting until completely resuspended.
2. Use immediately or prepare aliquots and store at 4 °C for up to 1 week or at -20 °C to -80 °C for up to 12 months. Avoid freeze-thaw cycles.
3. Further dilutions can be prepared in the appropriate aqueous buffer, such as cell culture medium containing serum.

RELATED PRODUCTS

Product	Cat. Code
HEK-Blue™ TSLP cells	hkb-tslp
Anti-hTSLP-hlgG2	htslp-mab2

TECHNICAL SUPPORT

InvivoGen USA (Toll-Free): 888-457-5873

InvivoGen USA (International): +1 (858) 457-5873

InvivoGen Europe: +33 (0) 5-62-71-69-39

InvivoGen Asia: +852 3622-3480

E-mail: info@invivogen.com

