



Interleukin-17E, rat recombinant (rrIL-17E)

Catalog No: 99849
Lot No: XXXXX
Source: *E. coli*
Synonyms: IL-25, IL-17E, IL17E, IL25, Interleukin-25

Background

IL-25 also called IL-17E cytokine has a sequence similarity with IL17. IL-17E induces NF-kappaB activation, and stimulates the production of IL-8. IL17E and IL17B are ligands for the cytokine receptor IL17BR. IL-25 is a proinflammatory cytokine favoring Th2-type immune response. The upregulation of costimulation-induced IL-17E receptors and release of cytokines and chemokines from IL-17E treated costimulated Th cells are differentially regulated by intracellular JNK, p38 MAPK and NF-kappaB activity. Blocking Interleukin-25 prevents airway hyperresponsiveness, a critical feature of clinical asthma. IL25 produced by innate effector eosinophils and basophils increase the allergic inflammation by enhancing the maintenance and functions of TSLP-DC activated adaptive Th2 memory cells. Over expression of IL-25 up-regulates gene expression of Th2 cytokines and induces growth retardation, jaundice, and multiorgan inflammation in a transgenic mouse model. IL-25 contributes to the induction and maintenance of eosinophilic inflammation by acting on lung fibroblasts which supports the fact that IL-17E is an important factor in asthma pathophysiology. IL-17E operates by amplifying TH2 cell-mediated allergic airway inflammation but doesn't induce allergic inflammation in vivo.

Description

Interleukin-17E rat recombinant produced in *E. coli* is a homodimeric, non-glycosylated polypeptide chain containing 145 amino acids and having a molecular mass of 35.5 kDa. IL-25 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1 mg/ml) solution containing no additives.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-17E in sterile 10 mM HCl not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin IL17E, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat IL-25 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

CSHLPRCCPS KQQEFPEEWL KWNPAVSP EPLRHTHHPE SCRASKDGPL NSRAISPWSY ELDRDLNRVP QDLYHARCLC
PHCVSLQTGS HMDPMGNSVP LYHNQTVFYR RPCHGEQGAH GRYCLERRLY RVSLACVCVR PRMMA

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