



Interleukin-17E, mouse recombinant (rIL-17E)

Catalog No: 97243
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 mouse recombinant is a non-glycosylated, disulfide-linked homodimer, containing 2x145 amino acid chains, with a total molecular weight of 35.5 kDa. Mouse IL-17E is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

IL-17E was 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 at a concentration not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IL-17E, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-17E 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

VSLRIQEGCS HLPSCCPske QEPPEEWLKW SSASVSPPEP LSHTHHAESC RASKDGPLNS RAISPWSYEL DRDLNRVPQD
LYHARCLCPH CVSLQGTGSHM DPLGNSVPLY HNQTVFYRRP CHGEEGTHRR YCLERRLYRV SLACVCVRPR VMA

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Activity

The activity is determined by the dose-dependent production of IL-8 by human PBMCs and is 322 - 488 ng/ml.

Usage

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