

Recombinant Rat Interleukin 25

Cat. No. II25-90R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Interleukin-17E produced in <i>E. Coli</i> is a homodimeric, non-glycosylated polypeptide chain containing 145 amino acids and having a molecular mass of 35.5 kDa. The Rat IL-25 is purified by proprietary chromatographic techniques.
Species	Rat
Source	E.coli
Description	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

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doesn't induce allergic inflammation in vivo.

Amino Acid Sequence

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

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

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

Formulation

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

Solubility

It is recommended to reconstitute the lyophilized Interleukin Rat IL25 in sterile 10 mM HCL not less than 100 g/ml, which can then be further diluted to other aqueous solutions.

Specific Activity

Rat IL-17A is fully biologically active when compared to standards via dose-dependent induction of IL-6 production in cultured rat fibroblasts.

Stability

Lyophilized Interleukin Rat 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.

GENE INFORMATION

Gene Name

IL25 interleukin 25 [*Rattus norvegicus*]

Synonyms

IL25; interleukin 25; RGD1561632;rgd1561632_predicted; similar to IL25; similar to

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il25 (predicted); similar to IL25 (predicted); RGD1561632_predicted; LOC501996

Gene ID 501996**mRNA Refseq** XM_577423**Protein Refseq** XP_577423**Chromosome Location** 15p13**Pathway** Cytokine-cytokine receptor interaction**Function** cytokine activity Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA