

Recombinant Rat Interleukin 25

Cat. No. IL25-90R **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

 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

doesn't induce allergic inflammation in vivo.

Amino Acid Sequence

CSHLPRCCPS KQQEFPEEWL KWNPAVSP EPLRHTHHPE SCRASKDGPL
NSRAISPWSY ELDRDLNRVP QDLYHARCLC PHCVSLQTGS HMDPMGNSVP
LYHNQTVFYR RPCHGEQGAH GRYCLERRLY 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 µg/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

 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

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