



# Recombinant Protein Technical Manual

## Recombinant Human Interleukin-25/IL-25 Protein (His Tag) RPES2270

### Product Data:

**Product SKU:** RPES2270

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q9H293

### Protein Information:

**Molecular Mass:** 16.7 kDa

**AP Molecular Mass:** 20-26 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM Tris, 150mM NaCl 1mM EDTA, pH8.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Interleukin-25; IL-25; Interleukin7E; IL7E; IL25; IL17E

## Immunogen Information:

**Sequence:** Tyr33-Gly177

## Background:

Interleukin 25 (IL-25) belongs to the Interleukin 17 (IL7) family of proteins, which is comprised of six members (IL7, IL7B through IL7F). These proteins are secreted and are structurally related by sharing a conserved cysteine-knot fold near the C-terminus, but have considerable sequence divergence at the N-terminus. With the exception of IL7B, which exists as a non-covalently linked dimer, all IL7 family members are disulfide-linked dimers. IL7 family proteins are pro-inflammatory cytokines that induce local cytokine production and are involved in the regulation of immune functions. Human interleukin7E (IL17E), also referred to as Interleukin-25 (IL25), is a distinct member of the IL17 cytokine family comprised of at least six members sharing a conserved cysteine-knot structure but divergent at the N-terminus. IL25 is a glycoprotein secreted as dimers by innate effector eosinophils and basophils, and present at very low levels in various peripheral tissues. IL25, together with IL17B, are ligands for the cytokine receptor IL17BR, and the cross-linking induces NF- $\kappa$ B activation and production of the proinflammatory chemokine IL-8, as well as ERK, JNK, and p38 activation. Overexpression of IL25 gene in transgenic mice suggested that this cytokine can regulate hematopoietic and immune functions, and additionally is identified as a proinflammatory cytokine favoring Th2-type immune responses possibly by enhancing the maintenance and functions of adaptive Th2 memory cells.