



# Recombinant Protein Technical Manual

**Recombinant Human IL6RA/CD126 Protein (His Tag)(Active)**  
RPES3581

## Product Data:

**Product SKU:** RPES3581

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_000556.1

## Protein Information:

**Molecular Mass:** 40 kDa

**AP Molecular Mass:**

**Tag:** C-His

**Bio-activity:** 1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human IL-6 at 8 µg/mL (100µl/well) can bind recombinant human IL6R with a linear range of 1.25-20.0 ng/ml. 2. Measured by its ability to enhance the IL6 activity on M1 mouse myeloid leukemia cells. The ED50 for this effect is typically 20-80 ng/ml.

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg of the protein 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 sterile PBS, pH 7.4

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

**Application:** Functional ELISA

**Synonyms:** Interleukin-6 receptor subunit alpha;IL-6R subunit alpha;IL-6R-alpha;IL-6R 1;Membrane glycoprotein 80;gp80;CD126;IL-6R;IL-6R;IL-6RA;IL6Q;IL6RQ

## Immunogen Information:

**Sequence:** Met 1-Pro 365

## Background:

Interleukin 6 receptor (IL-6R) also known as CD126 (Cluster of Differentiation 126) is a type I cytokine receptor. The low concentration of a soluble form of IL-6 receptor (sIL-6R) acts as an agonist of IL-6 activity. In the IL-6R/CD126/IL6R system, both a membrane-bound IL-6R and a sIL-6R protein are able to mediate IL-6 signals into the cells through the interaction of gp130. The resulting IL-6/sIL-6R protein complex is also capable of binding to gp130 and inducing intracellular signalling. Through this so-called 'trans-signalling' mechanism, IL-6 is able to stimulate cells that lack an endogenous mIL-6R. High levels of IL-6 and sIL-6R have been reported in several chronic inflammatory and autoimmune diseases as well as in cancer.