

## DATASHEET

Version 20181206

### IL-2 R $\alpha$ , His, Human

**Cat. No.:** Z03297-10

**Size:** 10.0 ug

**Synonyms:** soluble IL-2 receptor, TAC-antigen, CD25 antigen

**Description:**

Interleukin-2 receptor (IL-2R) is a heterotrimeric protein expressed on the surface of certain immune cells, such as lymphocytes, that binds and responds to the cytokine IL-2. The IL-2R is made up of 3 subunits - alpha ( $\alpha$ ), beta ( $\beta$ ) and gamma ( $\gamma$ ). The  $\alpha$  and  $\beta$  chains are involved in binding IL-2, while signal transduction following cytokine interaction is carried out by the  $\gamma$ -chain, along with the  $\beta$  subunit. The  $\beta$  and  $\gamma$  chains of the IL-2R are members of the type I cytokine receptor family. IL-2R has a high binding affinity to IL-2 and is expressed by antigen-activated T lymphocytes (T cells). IL-2 R $\alpha$  is also known as CD25, p55, and Tac (activated T cell) antigen. Recombinant Human Interleukin-2 Receptor  $\alpha$  (IL-2 R  $\alpha$ ), His produced in HEK 293 cells is a polypeptide chain containing 205 amino acids. A fully biologically active molecule, rhIL-2 R  $\alpha$  has a molecular mass of 42 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Amino Acid Sequence:**

```
00001 HHHHHHHHEL CDDDPPEIPH ATFKAMAYKE GTMLNCECKR
00041 GFRRIKSGSL YMLCTGNSSH SSWDNQCQCT SSATRNNTTKQ
00081 VTPQPEEQKE RKTTEMQSPM QPVDQASLPG HCREPPPWEN
00121 EATERIYHFV VGMVYVYQCV QGYRALHRGP AESVCKMTHG
00161 KTRWTQPQLI CTGEMETSQF PGEKPKQASP EGRPESETSC
00201
```

**Source:** HEK 293

**Species:** Human

**Biological Activity:** Determined by its ability to increase the proliferation effect of IL-2 in murine CTLL-2 cells. In the presence of 1 ng/ml of recombinant IL-2, ED<sub>50</sub> for this effect is < 1.5  $\mu$ g/ml.

**Molecular Weight:** 42 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

**Purity:** > 95% as analyzed by SDS-PAGE and HPLC.

**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant Human Interleukin-2 Receptor  $\alpha$  remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human Interleukin-2 Receptor  $\alpha$  should be stable up to 1 week at 4°C or up to 3 months at -20°C.