

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

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

Catalog Number: BK0314-50 $\mu$ g

Source: HEK 293

Quantity: 50 $\mu$ g

### 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.

### Molecular Weight:

42 kDa, observed by reducing SDS-PAGE.

### Purity:

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

### 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, ED50 for this effect is < 1.5  $\mu$ g/ml.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) pow-

der.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

HHHHHHHHELCDDDPPEIPHATFKAMA-  
YKEGTM LNCECKRG-  
FRRIKSGSLYMLCTGNSSHSSWDNQCQCTSSA-  
TRNTTKQVTPQPPEEQKERK-  
TTEMQSPMQPVDQASLPGHCREPPWENEAT-  
ERIYHFVVGQMVYYQCVQGYRALHR-  
GPAESVCKMTHGKTRWTQPQLICTGE-  
METSQFPGEEKPQASPEGRPESETSC

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

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

### Storage:

Lyophilized recombinant Human Interleukin-2 Receptor  $\alpha$  remains stable up to 6 months at -80  $^{\circ}$ C from date of receipt. Upon reconstitution, Human Interleukin-2 Receptor  $\alpha$  should be stable up to 1 week at 4 $^{\circ}$ C or up to 3 months at -20  $^{\circ}$ C.

### Usage:

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