

Recombinant Rat Interleukin-2 (rRtIL-2)

PrimeGene Technical Data Sheet

Catalog Number: 141-02

Source: Escherichia coli.

Molecular Weight: Approximately 15.5 kDa, a single non-glycosylated polypeptide chain containing 135 amino acids.

Quantity: $5\mu g/20\mu g/1000\mu g$

AA Sequence: APTSSPAKET QQHLEQLLLD LQVLLRGIDN YKNLKLPMML TFKFYLPKQA TELKHLQCLE

NELGALQRVL DLTQSKSFHL EDAGNFISNI RVTVVKLKGS ENKFECQFDD EPATVVEFLR

RWIAICQSII STMTQ

Purity: > 97 % by SDS-PAGE and HPLC analyses.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by a cell proliferation

assay using murine CTLL-2 cells is less than 0.2 ng/ml, corresponding to a specific activity of $> 5.0 \times$

 10^6 IU/mg.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: A 0.2 µm filtered concentrated sterile solution in 10 mM sodium citrate, pH 4.0.

Endotoxin: Less than 1 EU/μg of rRtIL-2 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the

bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and

stored at \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping: The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

12 months from date of receipt, -20 to -70 °C as supplied.

• 1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage: This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. **NOT FOR HUMAN USE**.

Rat Interleukin-2

IL-2 is a powerful immunoregulatory lymphokine produced by T-cells in response to antigenic or mitogenic stimulation. It is expressed by CD4+ and CD8+ T cells, $\gamma\delta$ T cells, B cells, dendritic cells, and eosinophils. IL-2/IL-2R signaling is required for T-cell proliferation and other fundamental functions which are essential for the immune response. The receptor for IL-2 consists of three subunits (55 kDa IL2R α , 75 kDa IL2R β , 64 kDa common gamma chain γ c/IL2R γ) that are present on the cell surface in varying preformed complexes. Recombinant rat IL-2 is a 15.3 kDa protein containing 134 amino acid residues and it shares about 82 %, 66 %, 66 %, 60 % and 54 % amino acid sequence identity with mouse, human, rhesus macaque, pig and equus caballus IL-2, respectively.

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Email: info.pg@bio-techne.com

Shanghai PrimeGene Bio-Tech Co., Ltd.

Website: www.primegene.com.cn

Tel: +86 21 52380373

Website: www.primegene.com Fax: +86 21 61077348