

Recombinant Rat Interleukin-2

#R00299

Size: 5 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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, γδ 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 IL2Rα, 75 kDa IL2Rβ, 64 kDa common gamma chain γc/IL2Rγ) 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.

AA Sequence

APTSSPAKETQQHLEQLLLDLQVLLRGIDNYKNLKL

MMLTFKFYLPKQATELKHLQCLENELGALQRVLDLTQ
SKSFHLEDAGNFISNIRVTVVKLKGSENKFECQFDDE
PATVVEFLRRWIAICQSIISTMTQ

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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	T-cell Growth Factor, CGF
Accession	P17108
GeneID	116562
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 15.5 kDa, a single non-glycosylated polypeptide chain containing 135 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 × 10 ⁶

	IU/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(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.
