Technical Data Sheet

Recombinant Rat IL-2

Product Information

Material Number:	**555106**
Size:	5 µg
Concentration:	100 µg/ml
Reactivity:	QC Testing: Rat
Storage Buffer:	Frozen aqueous buffered solution containing BSA and glycerol.

Description

Interleukin-2 (IL-2) is a potent, multifunctional cytokine produced by activated T lymphocytes. It is responsible for the activities attributed to T cell growth factor, thymocyte stimulation factor, thymocyte mitogenesis factor, killer helper factor, and T cell replacing factor. IL-2 stimulates the growth and differentiation of T cells, as well as cytokine production by T cells. In addition, IL-2 can contribute to the activation of monocytes/macrophages and NK and LAK cells and can augment B cell growth and differentiation.

Formulation and Purity

Recombinant rat IL-2 is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution (pH 7.2) and containing 2 mg/ml biotechnology grade, low-endotoxin bovine serum albumin, glycerol and with no preservatives. The endotoxin level is ≤ 0.1 ng per µg of rat IL-2 protein, as measured in a LAL chromogenic assay. This recombinant rat IL-2 is a single band of approximately 16.5 kD as determined by SDS-PAGE analysis on 10 - 20% gels run under reducing conditions.

Preparation and Storage

This preparation contains no preservatives, thus it should be handled under aseptic conditions.
Store product at -80°C prior to use or for long term storage of stock solutions.
Rapidly thaw and quick-spin product prior to use.
Avoid multiple freeze-thaws of product.
Upon initial thawing the product should be aliquoted into polypropylene microtubes and frozen at –80°C for future use. Alternatively, the product can be diluted in sterile neutral buffer containing not less than 0.5 - 10 mg/ml carrier protein, such as human or bovine albumin, aliquoted and stored at ≤ -70°C. For in vitro biological assay use, we recommend carrier-protein concentrations of 0.5 – 1.0 mg/ml. For use as an ELISA standard we recommend carrier-protein concentrations of 5 - 10 mg/ml. Failure to add carrier protein or store at indicated temperatures may result in a loss of activity. The product should not be diluted to less than 10 µg/ml for long term storage. Carrier proteins should be pre-screened for possible effects in an appropriate experimental system. Carrier proteins may effect experimental results due to toxicity, high endotoxin levels or possible blocking activity.

Application Notes

Application

Bioassay	Routinely Tested
ELISA Standard	Tested During Development

Recommended Assay Procedure:

1. Biological Activity

Activity is tested: in a Proliferation assay using CTLL-2 indicator cells

Specific activity: 0.6 - 5.0 x 10^8 Units*/mg

ED50: 20 - 150 pg/ml

Observed Dose response: 100 fold

* A Unit is defined as the amount of material required to stimulate a half-maximal response at cytokine saturation.

2. ELISA Standard

Recombinant rat IL-2 is useful as a quantitative standard for measuring rat IL-2 protein levels in an IL-2 specific sandwich ELISA. To obtain linear standard curves, doubling dilutions of this rat IL-2 standard from ~2,000 to 15 pg/ml should be included in each ELISA plate.
Note: This application is not routinely tested at BD Biosciences.

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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