Technical Data Sheet

Recombinant Mouse IL-2

Product Information

Material Number: 550069
Size: 20 µg
Concentration: 200 µg/ml
Reactivity: QC Testing: Mouse
Storage Buffer: Frozen aqueous buffered solution containing BSA.

Description

Interleukin-2 (IL-2) is a cytokine which was first described and characterized based upon its potent ability to modulate lymphocyte reactivity and promote long term in vitro culture of antigen-specific effector T lymphocytes. It is responsible for the activities previously ascribed to T cell growth factor, thymocyte stimulating factor, helper-factor and T cell replacing factor, to name a few. IL-2 has also been reported to act on neuronal cells. Mouse IL-2 is a 17.2 kD protein containing 149 amino acid residues. Recombinant mouse IL-2 (Cat. No. 550069) is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution and bovine serum albumin, with no preservatives. Recombinant mouse IL-2 is ≥ 95% pure as determined by SDS-PAGE, and an absorbance assay based on the Beers-Lambert law. The endotoxin level is ≤ 0.1 ng/µg of mouse IL-2, as measured in a chromogenic LAL assay.

Preparation and Storage

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.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

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Recommended Assay Procedure:

Upon initial thawing, recombinant mouse IL-2 (Cat. No. 550069) should be aliquoted into polypropylene microtubes and frozen at -80°C for future use. Alternatively, the product can be diluted in sterile netural buffer containing not less than 0.5 - 10 mg/mL carrier protein, such as human or bovine serum albumin, aliquoted and stored at -80°C. For use as an ELISA standard, carrier protein concentrations of 5 - 10 mg/mL are recommended. For in vitro biological assays, carrier protein concentrations of 1 mg/mL are suggested. Failure to add carrier protein or store at the indicated temperatures may result in a loss of activity. This 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 each investigator's experimental system. Carrier proteins may have an undesired influence on experimental results due to toxicity, high endotoxin levels or possible blocking activity.

ELISA Standard: Mouse IL-2 is useful as a quantitative standard for measuring mouse IL-2 protein levels in an IL-2 specific sandwich ELISA with the purified JES6-1A12 antibody (Cat. No. 554424) as a capture antibody and the biotinylated clone JES6-5H4 (Cat. No. 554426) as the detection antibody. To obtain linear standard curves, doubling dilutions of the mouse IL-2 standard from ~2,000 to 15 pg/mL should be included with each ELISA plate. This ELISA pair is recommended primarily for measuring cytokine from experimental cell culture systems, not for assay of serum or plasma samples. For measuring IL-2 in serum or plasma, the BD OptEIA™ Mouse IL-2 Set (Cat. No. 555148) is specially formulated and recommended.

Bioassay: Investigators are advised that the Bioassay application is not routinely tested for this material and are highly encouraged to both titrate this material and include appropriate controls in relevant experiments. An activity range of 0.1 - 1.0 x 10^-9 units/mg, encompassing an ED50= 10 - 100 pg/mL, has previously been reported using CTLL-2 indicator cells for proliferation, with a unit defined as the amount of material needed to stimulate a half-maximal response at cytokine saturation.

Blocking: Recombinant mouse IL-10 (Cat. No. 550069) can be useful as a blocking control for flow cytometric analysis when used with fluorochrome conjugated antibodies, such as PE-conjugated JES-5H4 (Cat. No. 554428). Investigators are advised that the blocking application is not routinely tested for this material. Intracellular cytokine staining techniques and use of blocking controls are described in detail by C.Prussin and D.Metcalf.
Suggested Companion Products

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<tr>
<td>554424</td>
<td>Purified Rat Anti-Mouse IL-2</td>
<td>0.5 mg</td>
<td>JES6-1A12</td>
</tr>
<tr>
<td>554426</td>
<td>Biotin Rat Anti-Mouse IL-2</td>
<td>0.5 mg</td>
<td>JES6-5H4</td>
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<tr>
<td>555148</td>
<td>Mouse IL-2 ELISA Set</td>
<td>20 Plate(s)</td>
<td>(none)</td>
</tr>
<tr>
<td>554428</td>
<td>PE Rat Anti-Mouse IL-2</td>
<td>0.1 mg</td>
<td>JES6-5H4</td>
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</table>

Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References