Mouse Erythropoietin Recombinant Protein

Product Information

<table>
<thead>
<tr>
<th>Material Number:</th>
<th>554597</th>
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<tbody>
<tr>
<td>Size:</td>
<td>5 µg</td>
</tr>
<tr>
<td>Concentration:</td>
<td>0.1 mg/ml</td>
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<tr>
<td>Reactivity:</td>
<td>QC Testing: Mouse</td>
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<td>Storage Buffer:</td>
<td>Frozen aqueous buffered solution containing BSA and glycerol.</td>
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Description

Mouse erythropoietin (EPO) is a 30 kDa heavily glycosylated protein containing 166 amino acids. The carbohydrate residues compose approximately 30% of the molecule by weight. It shares 80% and 95% homology with human and rat EPO, respectively. EPO functions as the survival and proliferation factors of late erythroid progenitor cells (CFU-E). In adult mammals, EPO is synthesized almost exclusively in the kidneys.

Formulation and Purity

Recombinant mouse EPO is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution, and containing 1 mg/ml biotechnology grade, low endotoxin bovine serum albumin, with no preservatives. The recombinant mouse EPO is > 95% pure, as determined by SDS-PAGE and an absorbance assay based on Beers-Lambert law. The endotoxin level is ≤ 0.1 ng per µg of mouse EPO, 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.

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 -80°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. 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

<table>
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<tr>
<th>Application</th>
<th>ELISA</th>
<th>Routinely Tested</th>
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<td></td>
<td>Bioassay</td>
<td>Tested During Development</td>
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Recommended Assay Procedure:

Biological Activity

Measured using TF-1 indicator cells

Specific Activity: 0.1 - 1.0 × 10^8 Units/mg (Unit is defined as the amount of material required to stimulate a half-maximal response at cytokine saturation).

ED50: 0.1 - 1.0 ng/ml; Observed linear dose response range: >100 fold

Product Notices

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

References


McDonald JD, Lin FK, Goldwasser E. Cloning, sequencing, and evolutionary analysis of the mouse erythropoietin gene. Mol Cell Biol. 1986; 6(3):842-848. (Biology)

