Recombinant Human IL-3

**Product Information**

Material Number: 554604  
Size: 10 µg  
Concentration: 200 µg/ml  
Reactivity: QC Testing: Human  
Storage Buffer: Frozen aqueous buffered solution containing BSA and glycerol.

**Description**

Interleukin-3 (IL-3) is a species specific colony stimulating factor which stimulates colony formation of megakaryocytes, neutrophils, and macrophages from bone marrow cultures. Human IL-3 is a 15 kD protein containing 133 amino acid residues. Recombinant human IL-3 (Cat. No. 554604) is supplied as a frozen liquid comprised of 0.22 µm sterile-filtered aqueous buffered solution containing glycerol and bovine serum albumin, with no preservatives. Recombinant human IL-3 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 per µg of human IL-3, 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**

**Application**

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<th>ELISA Standard</th>
<th>Bioassay</th>
<th>Intracellular block/block flow cytometry</th>
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<td>Routinely Tested</td>
<td>Tested During Development</td>
<td>Tested During Development</td>
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**Recommended Assay Procedure:**

Upon initial thawing, recombinant human IL-3 (Cat. No. 554604) 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 - 1.0 mg/mL carrier protein, such as human or bovine serum albumin, aliquoted and stored at -80°C. 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 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:** Recombinant human IL-3 (Cat. No. 554604) is useful as a quantitative standard for measuring human IL-3 protein levels using sandwich ELISA with purified BVD8-3G11 (Cat. No. 554672) as a capture antibody and biotinylated BVD3-1F9 (Cat. No. 554674) as the detection antibody. To obtain linear standard curves, investigators may want to consider using doubling dilutions of recombinant human IL-3 from 2000 - 15 pg/mL to be included in each ELISA plate.

**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 0.3 - 1.4 x 10^8 units/mg, encompassing an EDSO= 70 - 300 pg/mL, has previously been reported using TF-1 as 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 human IL-3 (Cat. No 554604) can be used as a blocking control for flow cytometric analysis when used with PE-conjugated BVD3-1F9 antibody (Cat. No. 554676). Investigators are advised that the blocking application is not routinely tested for this material. Intracellular cytokine staining techniques and the use of blocking controls are described in detail by C. Prussin and D. Metcalfe.

**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>554672</td>
<td>Purified Rat Anti-Human IL-3</td>
<td>0.5 mg</td>
<td>BVD8-3G11</td>
</tr>
<tr>
<td>554674</td>
<td>Biotin Rat Anti-Human IL-3</td>
<td>0.5 mg</td>
<td>BVD3-1F9</td>
</tr>
<tr>
<td>554676</td>
<td>PE Rat Anti-Human IL-3</td>
<td>0.1 mg</td>
<td>BVD3-1F9</td>
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<tr>
<td>554066</td>
<td>Streptavidin HRP</td>
<td>1.0 ml</td>
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<tr>
<td>555214</td>
<td>TMB Substrate Reagent Set</td>
<td>each</td>
<td>(none)</td>
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**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**

