

## PRODUCT DESCRIPTION

Interleukin 3 (IL-3) is a species-specific pleiotropic cytokine, which can stimulate the proliferation and differentiation of pluripotent hematopoietic cells as well as various lineage-committed progenitors. Recombinant human IL-3 has a predicted molecular mass of approximately 15 kDa and is composed of the 133 amino acid residue mature form of IL-3 and the 134 amino acid residue methionyl form of IL-3 at a ratio of 1:2.

## SOURCE

A DNA sequence encoding the mature human IL-3 protein<sup>1</sup> was expressed in *E. coli*.

## PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 µg cytokine, as determined by the LAL method.

## ACTIVITY

The biological activity of recombinant human IL-3 is measured in a cell proliferation assay using a human, factor-dependent cell line, TF-1.<sup>2</sup> The ED<sub>50</sub> for this effect is typically 0.1 - 0.4 ng/mL.

## FORMULATION

Recombinant human IL-3 is lyophilized from a 0.2 µm filtered solution in phosphate buffered saline (PBS) containing 50 µg bovine serum albumin per 1 µg cytokine.

## RECONSTITUTION

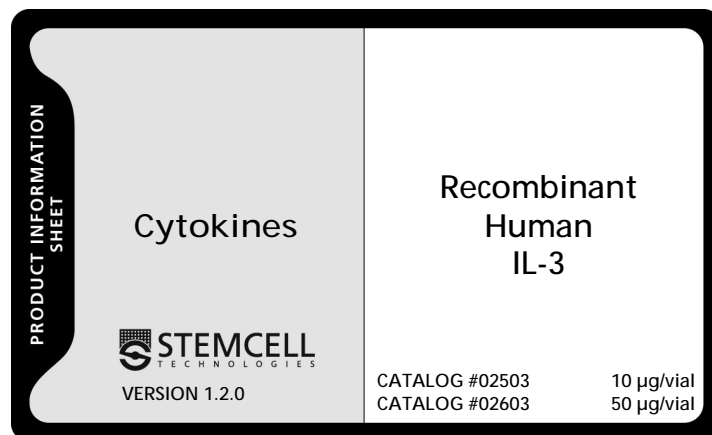
Reconstitute human IL-3 at a concentration greater than 10 µg/mL with sterile PBS containing at least 0.1% human or bovine serum albumin.

## STABILITY AND STORAGE

Lyophilized human IL-3 is stable for up to twelve months from date of receipt at -20°C to -70°C.

Reconstituted human IL-3 can be stored under sterile conditions at 2°C - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

**Avoid repeated freezing and thawing.**



## REFERENCES

1. Yang Y-C, Ciarletta AB, Temple PA, Chung MP, Kovacic S, Witek-Giannotti JS, Leary AC, Kriz R, Donahue RE, Wong GC, Clark SC: Human IL-3 (multi-CSF): Identification by expression cloning of a novel hematopoietic growth factor related to murine IL-3. *Cell* 47: 3-10, 1986
2. Kitamura T, Tange T, Terasawa T, Chiba S, Kuwaki T, Miyagawa K, Piao YF, Miyazono K, Urabe A, Takaku F: Establishment and characterization of a unique human cell line that proliferates dependently on GM-CSF, IL-3, or erythropoietin. *J Cell Physiol* 140: 323-334, 1989