

Technical Data Sheet

Recombinant human IL-3 protein



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Lot Specific Information

Lot Number: Lot Specific*

Total Protein: Lot Specific*

*This information will be noted on the certificate of analysis that ships with this product.

Shelf Life

This product has a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended.

Product Website Link: <https://bioxcell.com/recombinant-human-il-3-protein-rp026>

Product Information

Catalog Number:	RP026
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Recommended Dilution Buffer:	InVivoPure Reconstitution Buffer A
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in 10 mM HCl (Reconstitution solution A) at >50 µg/ml. Once reconstituted, store in single-use aliquots to avoid freeze-thaw cycles. Store reconstituted protein at -20 °C to -80 °C for a maximum of 12 months or until the expiry date if sooner.
Sterility:	Sterile
Production:	Microbial. Expressed in E. coli
Molecular Weight:	15.2 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human IL-3 protein (interleukin 3) is a ~15.7 kDa, 140-amino-acid monomeric glycoprotein and multi-lineage hematopoietic growth factor that promotes the proliferation, differentiation and survival of hematopoietic stem cells and myeloid progenitors, inducing development of mast cells, basophils, monocytes, erythrocytes and megakaryocytes. Its four-alpha-helix structure is stabilized by disulfide bridges, and it is produced by activated T and B cells, macrophages, monocytes, mast cells, endothelial cells and fibroblasts. IL-3 binds the heterodimeric IL-3 receptor (IL-3Rα plus the shared βc subunit, also used by IL-5 and GM-CSF) to trigger PI3K/Akt, Ras/ERK and MAPK signaling. In cell culture, IL-3 maintains peripheral blood cells, expands and differentiates hematopoietic stem cells, acts synergistically with IL-6, and helps differentiate iPSCs toward myeloid and antigen-presenting lineages. IL-3 is studied for bone marrow reconstitution, aplastic anemias, acute myeloid leukemia, myelodysplastic syndromes, cancer immunotherapy and sepsis, making recombinant IL-3 a valuable reagent for hematopoiesis and immunology research. This protein is optimized for in vivo and functional applications: low-endotoxin, tag-free, and carrier-free, supporting reproducible performance in demanding preclinical and bioactivity studies. Species reactivity: human. Species similarity: mouse - 27%, rat - 26%, bovine - 30%.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at <https://bioxcell.com/faqs>.

Store lyophilized protein between -20 °C and -80 °C until the date of expiry. Avoid freeze-thaw cycles

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Conditions: For research use only. Not for use in diagnostic or therapeutic procedures.

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