Technical Data Sheet

Recombinant human IL-8 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 Information

Catalog Number:	**RP100**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Differentiation into monocytic lineages Chemotaxis experiments Differentiation of osteoclasts
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in 10 mM HCl (Reconstitution Buffer 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:	8.9 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant human IL-8 protein (interleukin-8 / CXCL8) is a C-X-C motif chemokine, originally identified as monocyte-derived neutrophil chemotactic factor (MDNCF) for its chemotactic activity on neutrophils, translated as a 99-amino-acid precursor and processed to the 72-amino-acid biologically active form. IL-8 signals through two G-protein coupled receptors, CXCR1 and CXCR2, activating Akt/PKB, MAPK and PKC pathways that regulate cell adhesion and migration. An inflammatory cytokine produced by fibroblasts, lung epithelial and endothelial cells, keratinocytes, T cells, neutrophils, mast cells, monocytes and macrophages, IL-8 also contributes to tumor growth and vascularization, and in triple negative breast cancer its expression is closely related to prognosis and is being investigated as a potential therapeutic target. IL-8 further acts as a growth factor for human hematopoietic progenitors, promoting growth and differentiation of monocytic lineages including megakaryocytes, monocytes and macrophages, and recombinant IL-8 stimulates differentiation of human peripheral blood mononuclear cells into osteoclasts, making it a key reagent for inflammation, cancer and hematopoiesis 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. A GMP-grade version of this protein is available for cell and gene therapy manufacturing. Contact us at customerservice@bioxcell.com for details. Species reactivity: human. Species similarity: mouse - 80%, bovine - 76%, porcine - 76%.

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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