

Product Information

Interleukin 8 Human

Recombinant, Expressed in *Escherichia coli*, Cell culture tested

I1645

Product Description

Interleukin 8 (IL-8), formerly called monocyte-derived neutrophil chemotactic factor, belongs to the α or C-X-C chemokine family.¹ The mature form of IL-8 has 4 cysteine residues, as do other members of the chemokine family, and the first two cysteine residues are separated by glutamine.² IL-8 genomic DNA consists of 4 exons and 3 introns with a single "TATA" and "CAT"-like sequence.² The mature form of human IL-8 is an 8.4 kDa protein containing 72 amino acids. IL-8 exhibits chemotactic activity *in vitro* for T cells,³ basophils, and neutrophils,² and activates neutrophils to release lysosomal enzymes including myeloperoxidase, α -mannosidase, and β -glucuronidase.² IL-1 will induce the production of IL-8 from fibroblasts, keratinocytes, endothelial cells, hepatoma cells, astrocytoma cells, glioblastoma cells, lung epithelial cells, synovial membrane cells, melanocytes, melanoma cells, and gastric cancer cells.² LPS will stimulate IL-8 production in monocytes/macrophages.²

Reagent

Lyophilized from a 0.2 μ m filtered solution containing 10 mM sodium phosphate, pH 7.5.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The lyophilized protein is stable for up to a few weeks at room temperature, but is best stored at -20 °C. For extended storage, reconstituted IL-8 should be stored in working aliquots at -20 °C. Repeated freezing and thawing is not recommended. Storage in frost-free freezers is also not recommended.

Reconstitution and Use

Reconstitute the contents of the vial using water to a concentration of 0.1-1.0 mg/mL. This solution can then be diluted into other aqueous buffers and stored at 2-8 °C for up to 1 week or aliquoted and stored at -20 °C for future use.

Product Profile

The biological activity is determined by its ability to chemoattract human peripheral blood neutrophils using a concentration range of 10.0-100.0 ng/mL.

References

1. Yoshimura, T., et al., Proc. Natl. Acad. Sci. USA, 84, 9233 (1987).
2. Mukaida, N., et al., Microbiol. Immunol., 36, 773 (1992).
3. Larsen, C.G., et al., Science, 243, 1464 (1989).
4. White, M.V., et al., Immunol. Lett., 22, 151 (1989).
5. Schröder, J.M., et al., J. Immunol., 139, 3474 (1987).

Notice

We provide information and advice to our customers on application technologies and regulatory matters to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose.

The information in this document is subject to change without notice and should not be construed as a commitment by the manufacturing or selling entity, or an affiliate. We assume no responsibility for any errors that may appear in this document.

Technical Assistance

Visit the tech service page at SigmaAldrich.com/techservice.

Terms and Conditions of Sale

Warranty, use restrictions, and other conditions of sale may be found at SigmaAldrich.com/terms.

Contact Information

For the location of the office nearest you, go to SigmaAldrich.com/offices.

The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the U.S. and Canada.

MilliporeSigma, and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates. All other trademarks are the property of their respective owners. Detailed information on trademarks is available via publicly accessible resources.

© 2010-2025 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.

23223292 Rev 06/25

The logo for MilliporeSigma, featuring the word "MILLIPORE" in a bold, red, sans-serif font above the word "SIGMA" in a similar bold, red, sans-serif font.