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ProductInformation

Cytokine Induced Neutrophil Chemoattractant 2ß CINC-2b

Rat Recombinant

Product Number **C264** Storage Temperature -20°C

Product Description

CINC-2α (Cytokine-Induced Neutrophil Chemoattractant-2α) and CINC-2β (Cat. No. C-263) were originally purified as novel neutrophil chemoattractants from the conditioned medium of rat granulation tissue (also present in LPS-induced inflammatory exudate) which also contain CINC-1 (Cat. No. C-262) and CINC-3. Both mature CINC-2 α and CINC-2ß contain 68 amino acid residues. The amino acid sequences of the CINC-2 proteins are identical except for three carboxy-terminal residues. CINC-2β cDNA encodes a 100 amino acid residue precursor protein with a 32 residue signal peptide that is removed to yield the mature secreted protein. Mature CINC-2 proteins are 63% identical to CINC-1 and 80% identical to CINC-3. Other cell types known to produce CINC-2 proteins include activated macrophages and fibroblasts. On the basis of cross-desensitization results of the various CINC proteins, it has been postulated that rat neutrophils have at least two classes of CINC receptors: a class of CINC-3-specific receptor as well as a second common receptor shared by all CINCs.

Preparation Instructions

Reconstitute the contents of the vial using sterile phosphate buffered saline (PBS) containing at least 0.1% human serum albumin or bovine serum albumin to prepare a stock solution of no less than 50 µg/ml.

Storage/Stability

Prior to reconstitution, store tightly sealed at -20°C. After reconstitution and for continuous use, store at 2 -8°C for up to one month. For extended storage, solution may be frozen in working aliquots. Storage in "frost-free" freezers is not recommended. Repeated freezing and thawing is not recommended.

Procedure

The biological activity of CINC- 2β , rat is measured by its ability to induce myeloperoxidase release from cytochalasin-B treated human neutrophils.³ The EC50 for this effect is typically 3 - 6 μ g/ml.

Product Profile

Source: A DNA sequence encoding mature rat CINC-2 β protein was expressed in *E. coli.*^{1,2}

Molecular Weight: Approx. 7.6 kDa recombinant protein containing 68 amino acids

Purity: >97% purity as determined by SDS-PAGE Formulation: Lyophilized from a sterile filtered solution in 30% acetonitrile and 0.1% TFA, containing 50 μ g of bovine serum albumin per 1 μ g of cytokine

References

- 1. Nakagawa, H., et al. *Biochem. Biophys. Res Commun.* **220**, 945-948 (1996).
- 2. Nakagawa, H., et al. *Biochem. J.* **301**, 545-550 (1994)
- 3. Schröder, J.-M., et al. *J. Immunol.* **139**, 3474-3483 (1987).
- 4. Shibata, F., et al. *Eur. J. Biochem.* **231**, 306-311 (1995).
- Al-Mokdad, M., et al. *Biol. Pharm. Bull.* 19, 879-881 (1996).
- 6. Murakami, K., et al. *Biochem. Biophys. Res. Commun.* **232**, 562-567 (1997).
- 7. Watanabe, K., et al. *Exp. Mol. Path.* **55**, 30-37 (1991).
- 8. Watanabe, K., et al. *J. Biol. Chem.* **264**, 19559-19563 (1989).

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