Recombinant Rat CXCL3/GROγ/CINC-2/DCIP-1

Catalog Number: 516-CA

DESCRIPTION

Source	*E. coli*-derived Arg33-Ser100 Accession # Q10746
N-terminal Sequence Analysis	Arg33
Predicted Molecular Mass	7.6 kDa

SPECIFICATIONS

Activity	Measured by its ability to induce myeloperoxidase release from cytochalasin B-treated human neutrophils. Schröder, J.M. *et al.* (1987) J. Immunol. **139**:3474. The ED_{50} for this effect is 3-6 µg/mL. Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2. The ED_{50} for this effect is 4-20 ng/mL.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 50 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The rat chemokines CINC (cytokine-induced neutrophil chemoattractant)-1, CINC-2α, CINC-2β and CINC-3 (also named MIP-2) constitute a group of rat CXC chemokines that show significant sequence similarity to human GROs and mouse MIP-2 but not IL-8. CINC-2α, CINC-2β were originally purified as novel neutrophil chemoattractants from the conditioned medium of rat granulation tissue which also contain CINC-1 and CINC-3. Based on amino acid (aa) sequence analysis of the purified CINC-2α protein and sequencing of the CINC-2β cDNA clone, both mature CINC-2α and CINC-2β were shown to contain 68 aa residues. The amino acid sequences of the two CINC-2 proteins are identical except for three carboxy-terminal residues. CINC-2β cDNA encodes a 100 aa residue precursor protein with a 32 aa residue signal peptide that is removed to yield the mature secreted protein. At the protein sequence level, mature CINC-2 proteins are 63% identical to CINC-1 and 80% identical to CINC-3. CINC-2 proteins represent the major chemokines purified from conditioned medium of granulation tissue or LPS-induced inflammatory exudate. Other cell types known to produce CINC-2 proteins include activated macrophages and fibroblasts.

Recombinant and natural CINC-2 proteins have been shown to be specific neutrophil chemoattractants both *in vivo* and *in vitro*. 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.

References:

1. Nakagawa, H. *et al.* (1994) Biochem. J. **301**:545.
2. Watanabe, K. *et al.* (1989) J. Biol. Chem. **264**:19559.
3. Haskill, S. *et al.* (1990) Proc. Natl. Acad. Sci. USA **87**:7732.
4. Shibata, F. *et al.* (1995) Eur. J. Biochem. **231**:306.
5. Al-Mokdad, M. *et al.* (1996) Biol. Pharm. Bull. **19**:879.
6. Murakami, K. *et al.* (1997) Biochem. and Biophys. Res. Commun. **232**:562.
7. Watanabe, K. *et al.* (1991) Exp. Mol. Pathol. **55**:30.
8. Nakagawa, H. *et al.* (1996) Biochem. and Biophys. Res. Commun. **220**:945.

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