

DESCRIPTION

Source *E. coli*-derived
Arg33-Leu100
Accession # BAA04657

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 ED₅₀ for this effect is 3-6 µg/mL.

Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.
The ED₅₀ for this effect is 5-25 ng/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS.

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-2 α , CINC-2 β 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-2 α , CINC-2 β were originally purified as novel neutrophil chemoattractants from the conditioned medium of rat granulation tissue which also contained CINC-1 and CINC-3. Based on amino acid (aa) sequence analysis of the purified CINC-2 α protein and sequencing of the CINC-2 β cDNA clone, both mature CINC-2 α and CINC-2 β were shown to contain 68 aa residues. The aa sequences of the two CINC-2 proteins are identical except for three carboxy-terminal residues. CINC-2 β 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:

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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
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