

**DESCRIPTION**

**Source** *E. coli*-derived  
Ala35-Asn107  
Accession # NP\_002080

**N-terminal Sequence Analysis** Ala35

**Predicted Molecular Mass** 8 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<sub>50</sub> for this effect is 0.3-0.9 µg/mL.

Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.  
The ED<sub>50</sub> for this effect is 3-15 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 with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 100 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**

Human GRO $\alpha$ , GRO $\beta$  (MIP-2 $\alpha$ ), and GRO $\gamma$  (MIP-2 $\beta$ ) are products of three distinct, non-allelic human genes. GRO $\beta$  and GRO $\gamma$  share 90% and 86% amino acid sequence homology, respectively, with GRO $\alpha$ . All three human GROs are members of the alpha (C-X-C) subfamily of chemokines and are thought to be the homologs of murine KC and MIP-2.

The three GRO cDNAs encode 107 amino acid precursor proteins from which the N-terminal 34 amino acid residues are cleaved to generate the mature GROs. There are no potential N-linked glycosylation sites in the amino acid sequences. GRO expression is inducible by serum or PDGF and/or by a variety of inflammatory mediators, such as IL-1 and TNF, in monocytes, fibroblasts, melanocytes and epithelial cells. In certain tumor cell lines, GRO is expressed constitutively.

Similar to other alpha chemokines, the three GRO proteins are potent neutrophil attractants and activators. In addition, these chemokines are also active toward basophils. All three GROs can bind with high affinity to the IL-8 receptor type B.