Recombinant Human CXCL2/GROβ/MIP-2/CINC-3 aa 39-107

Catalog Number: 176-GB/CF

DESCRIPTION

Source	*E. coli*-derived Thr39-Asn107 Accession # NP_002080
N-terminal Sequence Analysis	Thr39
Predicted Molecular Mass	7.5 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 0.1-0.3 µg/mL. Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with human CXCR2. The ED_{50} for this effect is 1-5 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

Human GROα, GROβ (MIP-2α), and GROγ (MIP-2β) are products of three distinct, non-allelic human genes. GROβ and GROγ share 90% and 86% amino acid (aa) sequence homology, respectively, with GROα. All three human GROs are members of the alpha (C-X-C) subfamily of chemokines and are thought to be the homologs of the murine KC, and MIP-2.

The three GRO cDNAs encode 107 aa precursor proteins from which the N-terminal 34 aa residues are cleaved to generate the mature GROs. There are no potential N-linked glycosylation sites in the aa sequences. GRO expression is inducible by serum, 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.

Similarly 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 CXCR2. The 69 aa variant of human GROβ is approximately 3 times more active than the 73 aa variant (R&D Systems, Catalog # 276-GB) in inducing myeloperoxidase release from cytochalasin B treated neurotrophils.

References:

1. Chem. Immunol. (1999) **72**:1.

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