

## Recombinant Human Growth Regulated Protein-beta/CXCL2

### Information

<b>Gene ID</b>	2920
<b>Accession #</b>	P19875
<b>Alternate Names</b>	MIP2-alpha
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 7.9 kDa, a single non-glycosylated polypeptide chain containing 73 amino acids.
<b>AA Sequence</b>	APLATELRCQ CLQTLQGIHL KNIQSVKVKVKS PGPHCAQTEV IATLKNGQKA CLNPASPMVK KIIEKMLKNG KSN
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	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
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 50 mM NaCl.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human CXCR2 transfected human 293 cells is in a concentration range of 10-100 ng/ml.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	10µg	100µg	500µg
Recombinant Human Growth Regulated Protein-beta/CXCL2	10µg	100µg	500µg

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

## Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ $\mu$ g of rHuGRO- $\beta$ /CXCL2 as determined by LAL method.

## Description

CXCL2, also named GRO- $\beta$ , is belonging to the CXC chemokine family. It is encoded by the gene CXCL2 in humans. CXCL2/GRO- $\beta$  shares 90 % amino acid sequence with CXCL1/GRO- $\alpha$ . All three human GROs (GRO- $\alpha$ , GRO- $\beta$ , GRO- $\gamma$ ) are members of the intercrine alpha (chemokine C-X-C) subfamily of chemokine. This chemokine is secreted by monocytes and macrophages. The functional receptor for CXCL2 has been identified as CXCR2. CXCL2 is chemotactic for polymorphonuclear leukocytes and hematopoietic stem cells. Similar to other GRO proteins, CXCL2 is potent neutrophil attractants and activators. In addition, it is also active toward basophils.

## Reference

1. Haskill S, Peace A, Morris J, et al. 1990. Proc Natl Acad Sci U S A. 87:7732-6
2. Tsai HH, Frost E, To V, et al. 2002. Cell. 110:373-83
3. Wolpe SD, Sherry B, Juers D, et al. 1989. Proc Natl Acad Sci U S A. 86:612-6
4. Iida N, Grotendorst GR. 1990. Mol Cell Biol. 10:5596-9
5. Pelus LM, Fukuda S. 2006. Exp Hematol. 34:1010-20.

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