

Recombinant Human CXCL2/MIP-2 Protein

Catalog No.: RP01857 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	2920	P19875

Tags

No-Tag

Synonyms

CXCL2; GRO2; GROB; MIP2A; SCYB2; C-X-C motif chemokine 2; Growth-regulated protein beta; Gro-beta; Macrophage inflammatory protein 2-alpha; MIP2-alpha; Cleaved into: GRO-beta(5-73); GRO-beta-T; Hematopoietic synergistic factor; HSF; SB-251353

Product Information

Source	Purification
<i>E.coli</i>	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
7.89 kDa	20-25 kDa

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of 20mMTris,500mMNaCl,pH8.0

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

CXCL2 is a chemokine induced by endotoxin and serves as an extremely potent chemo-attractant for neutrophils, acting as a crucial inflammatory mediator. CXCL2 could be produced by multiple, different cell types, including macrophages and cancer cells. CXCL2 is involved in cancer metastasis, angiogenesis, and wound healing. The amino acid sequence of human CXCL2 protein has low homology between mouse and rat CXCL2 protein. CXCL2 is 90% identical in amino acid sequence as a related chemokine, CXCL1. The gene for CXCL2 is located on human chromosome 4 in a cluster of other CXC chemokines. CXCL2 binds to the G-protein coupled receptor CXCR2 (IL-8RB) expressed on macrophages, neutrophils, and epithelial cells and its classical function is to act as chemotactic factors attracting neutrophils to sites of injury. In enterocytes, LPS induces CXCL2 expression and promotes migration of neutrophils in a model of platelet-activating factor induced shock and bowel injury. In acute lung injury, CXCR2 ligands, including CXCL1/2/3, have chemotactic effects for polymorphonuclear leukocytes. CXCL2 could provoke a dose-dependent increase of colorectal tumor cell migration in vitro. Further, according to Bachmeier et al., CXCL-1 and -2 silencing could down-regulate several metastasis-promoting genes and inhibit the metastatic potential of breast cancer cells.

Basic Information

Description

Recombinant Human CXCL2/MIP-2 Protein is produced by *E.coli* expression system. The target protein is expressed with sequence (Ala35-Asn107) of Human CXCL2/MIP-2 (Accession #NP_002080.1) fused with No tag.

Bio-Activity

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

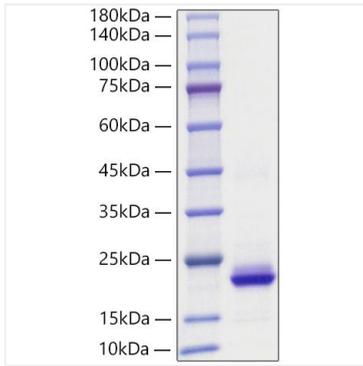
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Validation Data



Recombinant Human CXCL2/MIP-2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.