GRO-β/CINC-3/CXCL2, Human, Recombinant

Cat. No. : PCK124

General Information

Synonyms	C-X-C Motif Chemokine 2;Growth-Regulated Protein Beta;Gro-Beta;Macrophage Inflammatory Protein 2-Alpha;MIP2-Alpha;CXCL2;GRO2;GROB;MIP2A;SCYB2
Species	Human
Expression host	E.coli
Sequence	Thr39-Asn107
Accession	P19875
Mol mass	7.67 kDa
Expiration date	12 months

Product feature

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin (EU/μg)	< 0.1
Storage	Lyophilized protein should be stored at -5~-20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at -5~-20°C for 3 months.
Shipping	Ice bag
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, pH 8.0.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/mL. Dissolve the lyophilized protein in sterile water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Background

Chemokine Ligand 2 (CXCL2) is a small secreted Cytokine which belongs to the CXC Chemokine family. It is secreted by monocytes and macrophages and chemotactic for polymorphonuclear leukocytes and hematopoietic stem cells. CXCL2 mobilizes cells by interacting with a cell surface Chemokine Receptor called CXCR2. It has been known to regulate immune functions mainly by chemo-attracting neutrophils. It is produced by activated monocytes and neutrophils and expressed at sites of inflammation. It is a hematoregulatory Chemokine, which suppresses hematopoietic progenitor cell proliferation. It can be induced by Receptor activator of NF-kappaB Ligand, the osteoclast (OC) differentiation factor, through JNK and NF-kappaB signaling pathways in OC precursor cells. CXCL2 in turn enhanced the proliferation of OC precursor cells of bone marrow-Derived macrophages (BMMs) through the activation of ERK. Knockdown of CXCL2 inhibited both the proliferation of and the ERK activation in BMMs. During osteoclastogenesis CXCL2 stimulated the adhesion and the migration of BMMs. CXCL2 is a novel therapeutic target for inflammatory bone destructive diseases.