

## HUMAN CXCL2 PROTEIN

**Cat.#:** 12033

**Product Name:** Human CXCL2 Protein

**Size:** 10 µg, 50 µg and 100 µg

**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

**Target:** CXCL2

**UNIPROT ID:** P19875

**Description:** Recombinant Human C-X-C Motif Chemokine 2 is produced by our E.coli expression system and the target gene encoding Thr39-Asn107 is expressed.

**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.

**Species/Host:** E.coli

**Molecular Weight:** 7.67 KDa

**Molecular Characterization:** Not available

**Purity:** Greater than 95% as determined by reducing SDS-PAGE.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at  $-80^{\circ}\text{C}$  (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

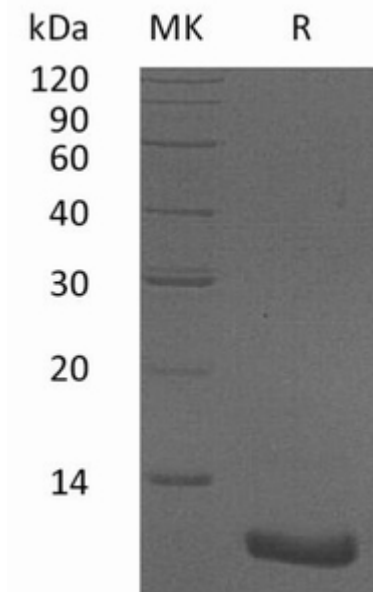


Figure 1. Greater than 95% as determined by reducing SDS-PAGE.