



LD Biopharma, Inc.
7384 Trade Street, Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CXCL2 Protein
Catalog Number: hRP-2311
Manufacturer: LD Biopharma, Inc.

Introduction

Human C-X-C chemokine 2 (CXCL2) is produced by activated monocytes and neutrophils and expressed at sites of inflammation. CXCL2 is a hemoregulatory chemokine, which, in vitro, suppresses hematopoietic progenitor cell proliferation. GRO-beta (5-73) shows a highly enhanced hematopoietic activity. Recent data indicated that CXCL2 may also plays a role in human obesity development by regulating adipose tissue infiltration macrophage.

Full-length mature human CXCL2 (GRO-beta) cDNA (39 - 107aa) was constructed with fully codon optimization strategy with N-terminal human AFP protein / TEV cleavage site as tag fusion. This protein was expressed in E. coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CXCL2 (GRO2; MGSA-b; MIP-2a; CINC-2a)
Accession Number: NP_002080.1
Species: Human
Size: 50 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Al-Alwan LA, et al., *Differential roles of CXCL2 and CXCL3 and their receptors in regulating normal and asthmatic airway smooth muscle cell migration*. J. Immunol. 191 (5), 2731-2741 (2013)



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Rouault C, et al., *Roles of chemokine ligand-2 (CXCL2) and neutrophils in influencing endothelial cell function and inflammation of human adipose tissue.* Endocrinology 154 (3), 1069-1079 (2013)

King AG, *Identification of unique truncated KC/GRO beta chemokines with potent hematopoietic and anti-infective activities.* J. Immunol. 164 (7), 3774-3782 (2000)

Applications

1. May be used for in vitro CXCL2 mediated hemato regulation study for hematopoietic stem cells with this protein either as soluble factor or as coating matrix protein.
2. Potential disease biomarker protein, such as monitoring obesity.
3. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MTLHRNEYGIASILDSYQCTAEISLADLATIFFAQFVQEATYKEVSKMVKDALTAIEKPTGDEQ
SSGCLLENQLPAFLLEELCHEKEILEKYGHSDCCSQSEEGRHNCFLAHKKPTPASIPLFQVPEPVT
SCEAYEEDRETFMNFYIYEIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVT
KELRESSGGSHHHHHGSENLYFQGTELRCQCLQTLQGIHLKNIQSVKVKSPGPHCAQTEVIAT
LKNGQKACLNPASPMVKKIIEKM LKNGKSN