ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Cat # RP-1041 Recombinant Rat GRO-beta/MIP-2 (CXCL2) **Size**: 5 ug

Chemokine (C-X-C motif) ligand 2 (CXCL2) is a small cytokine belonging to the CXC chemokine family that is also called macrophage inflammatory protein 2-alpha (MIP2-alpha), Growth-regulated protein beta (Gro-beta) and Gro oncogene-2 (Gro-2). CXCL2 is 90% identical in amino acid sequence as a related chemokine, CXCL1. This chemokine is secreted by monocytes and macrophages and is chemotactic for polymorphonuclear leukocytes and hematopoietic stem cells. The gene for CXCL2 is located on human chromosome 4in a cluster of other CXC chemokines. CXCL2 mobilizes cells by interacting with a cell surface chemokine receptor called CXCR2.

Source: *Escherichia Coli.* GRO-Beta Rat Recombinant also called Rat MIP-2 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 7923 Dalton. The CXCL2 is purified by proprietary chromatographic techniques. The protein was lyophilized with no additives.

Applications and Suggested Dilutions: Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. It is recommended to reconstitute the lyophilized GRO-beta Rat in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Lyophilized CXCL2 although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution CXCL2 should be stored at 4℃ between 2-7 days and for future use below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4oC for ~1 week or aliquots in suitable size and store at -20oC for long term storage. **Please prevent freeze-thaw cycles.**

Biological Activity: The Biological activity is calculated by its ability to chemoattract total rat neutrophils cells using 10.0-100.0 ng/ml.

Protein content: Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.015 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of CXCL2 as a Reference Standard.

Usage:
This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals

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