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# Recombinant Human Macrophage Inflammatory protein-1 beta (CCL4)

Alternate names: CCL4, MIP1 beta

Catalog No.: PA1167XC

Quantity: 1 mg
Species: Human
Source: E. coli

Format: Purity: >99% Greater than 99.0% as determined by:

(a) Analysis by RP-HPLC.(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Endotoxin: Less than 0.1 ng/ $\mu$ g (IEU/ $\mu$ g) of rHuMIP-1 $\beta$ .

Dimers / aggregates: Less than

#### **Description:**

Recombinant Human MIP-1 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 69 amino acids and having a molecular mass of 7620 Dalton. The rHuMIP-1 $\beta$  is purified by proprietary chromatographic techniques. Format: This antigen is supplied as sterile filtered, white lyophilized (freeze-dried) powder. SDF-1a was lyophilized from a concentrated (1 mg/ml) solution in water containing no additives. It is

recommended to reconstitute the lyophilized rHuMIP-1β in sterile 18 MO-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions. Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm . 2. Analysis by RP-HPLC, using a standard solution of MIP-1β as a Reference Standard.

AA Sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Met-Gly-Ser.

Molecular weight: 8 kDa

### Storage:

Lyophilized rHuMIP-1 $\beta$  although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution rHuMIP-1 $\beta$  should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is

recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

Shelf life: one year from despatch.

## **General Readings:**

1. Jennes W, Vereecken C, Fransen K, de Roo A, Kestens L. Disturbed secretory capacity for macrophage inflammatory protein (MIP)-1 alpha and MIP-1 beta in progressive HIV infection. AIDS Res Hum Retroviruses. 2004 Oct;20(10):1087-91. PubMed PMID: 15585099. 2. Chiba K, Zhao W, Chen J, Wang J, Cui HY, Kawakami H, et al. Neutrophils secrete MIP-1 beta after adhesion to laminin contained in basement membrane of blood vessels. Br J

For research and in vitro use only. Not for diagnostic or therapeutic work. Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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Haematol. 2004 Dec;127(5):592-7. PubMed PMID: 15566363.

- 3. McCornack MA, Boren DM, LiWang PJ. Glycosaminoglycan disaccharide alters the dimer dissociation constant of the chemokine MIP-1 beta. Biochemistry. 2004 Aug 10;43(31):10090-101. PubMed PMID: 15287737.
- 4. Grygorczuk S, Pancewicz S, Kondrusik M, Swierzbińska R, Zajkowska J, Hermanowska-Szpakowicz T. [Serum and cerebrospinal fluid concentration of inflammatory proteins MIP-1-alpha and MIP-1-beta and of interleukin 8 in the course of borreliosis]. Neurol Neurochir Pol. 2003 Jan-Feb;37(1):73-87. PubMed PMID: 12910831.
- 5. Chaisavaneeyakorn S, Moore JM, Mirel L, Othoro C, Otieno J, Chaiyaroj SC, et al. Levels of macrophage inflammatory protein 1 alpha (MIP-1 alpha) and MIP-1 beta in intervillous blood plasma samples from women with placental malaria and human immunodeficiency virus infection. Clin Diagn Lab Immunol. 2003 Jul;10(4):631-6. PubMed PMID: 12853396.
  6. Li Y, Douglas SD, Pleasure DE, Lai J, Guo C, Bannerman P, et al. Human neuronal cells (NT2-N) express functional substance P and neurokinin-1 receptor coupled to MIP-1 beta expression. J Neurosci Res. 2003 Feb 15;71(4):559-66. PubMed PMID: 12548712.