

## Recombinant Human Macrophage Inflammatory protein-1 alpha (CCL3)

<b>Alternate names:</b>	CCL3, MIP1 alpha
<b>Catalog No.:</b>	PA1165
<b>Quantity:</b>	5 µg
<b>Concentration:</b>	0.55 mg/ml
<b>Species:</b>	Human
<b>Source:</b>	E. coli, E.coli
<b>Format:</b>	<b>State:</b> Sterile Filtered White lyophilized (freeze-dried) powder. <b>Purity:</b> >98% Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Anion-exchange FPLC. (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained. <b>Buffer System:</b> Lyophilized from a concentrated solution in water containing no additives. <b>Endotoxin Level:</b> Less than 0.1 ng/µg (IEU/µg) of rHuMIP-1. <b>Dimers:</b> Less than 1% as determined by silver-stained SDS-PAGE gel analysis. <b>Reconstitution:</b> It is recommended to reconstitute the lyophilized rHuMIP-1α in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
<b>Description:</b>	Recombinant Human MIP-1 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids. The rHuMIP-1α is purified by proprietary chromatographic techniques. <b>AA Sequence:</b> The sequence of the first five N-terminal amino acids was determined and was found to be, Ala-Ser-Leu-Ala-Ala. <b>Biological Activity:</b> UV spectroscopy at 280 nm using the absorbency value of 0.9 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). Molecular weight: 7820 Dalton. <b>Molecular weight:</b> 8 kDa
<b>Add. Information:</b>	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-1 as a Reference Standard.
<b>Storage:</b>	Lyophilized rHuMIP-1α although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution rHuMIP-1α 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.

**General Readings:**

1. De Francesco MA, Poiesi C, Ricotta D, Manca N. HIV p17 reverses the anti-inflammatory activity of IL-4 on IL-15 stimulated monocytes and modulates their ability to secrete MIP-1 alpha. *Virus Res.* 2006 Jun;118(1-2):170-7. Epub 2006 Jan 19. PubMed PMID: 16427155.
2. Nishi T, Maier CM, Hayashi T, Saito A, Chan PH. Superoxide dismutase 1 overexpression reduces MCP-1 and MIP-1 alpha expression after transient focal cerebral ischemia. *J Cereb Blood Flow Metab.* 2005 Oct;25(10):1312-24. PubMed PMID: 15829914.
3. Brueckmann M, Hoffmann U, Dvortsak E, Lang S, Kaden JJ, Borggreffe M, et al. Drotrecogin alfa (activated) inhibits NF-kappa B activation and MIP-1-alpha release from isolated mononuclear cells of patients with severe sepsis. *Inflamm Res.* 2004 Oct;53(10):528-33. PubMed PMID: 15597147.
4. Jennes W, Vereecken C, Franssen 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.
5. Shi BB, Wang HJ, Ji ZG, Wang JT, Li HZ. [Clinical significance of RANTES and MIP-1 alpha in acute rejection episode in kidney transplantation]. *Zhongguo Yi Xue Ke Xue Yuan Xue Bao.* 2004 Feb;26(1):70-2. PubMed PMID: 15052779.
6. MIP-1 alpha and myeloma bone disease. *Cancer Treat Res* 2004;118:83-100