# Active Macrophage Inflammatory Protein 1 Alpha (MIP1a)

*Catalog#:PHH12166*

## 概述（Summary）

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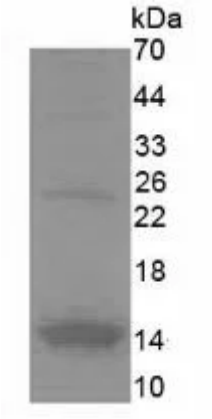
|---|---|
| **别称（Alternative Names）** | CCL3; MIP1-A; SCYA3; Chemokine C-C-Motif Ligand 3; Small Inducible Cytokine A3; Homologous To Mouse Mip-1a; Tonsillar Lymphocyte LD78 Alpha Protein |
| **纯度（Purity）** | Greater than 95% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Ser24-Ala92】 |
| **Accession #** | P10147 |
| **表达宿主（Host）** | 293F |
| **种属（Species）** | Homo sapiens (Human) |
| **预测分子量（Predicted MW）** | 9.3 kDa |
| **制剂（Form）** | Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| **运输方式（Shipping）** | The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below. |
| **稳定性&储存（Stability &Storage）** | 12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles. |
| **复溶（Reconstitution）** | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex. |
| **背景介绍（References）** | Monokine with inflammatory and chemokinetic properties. Binds to CCR1, CCR4 and CCR5. One of the major HIV-suppressive factors produced by CD8+ T-cells. Recombinant MIP-1-alpha induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV). |

## 电泳图（SDS-PAGE image）




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

## 活性图（Bioactivity image）

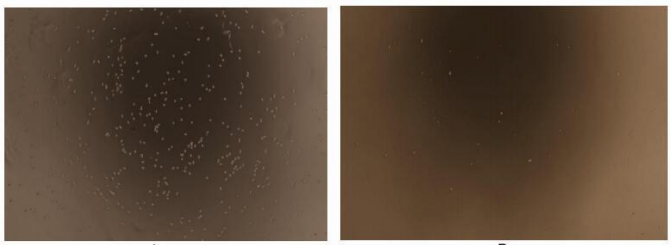



**Figure 1. The chemotactic effect of MIP-1-alpha on THP1 cells**

**(A) THP1 cells were seeded into the upper chambers and serum free RPMI 1640 with 100ng/mL MIP-1a was added in lower chamber, then cells in lower chamber were observed at low magnification (×40) after incubation for 5h;**

**(B) THP1 cells were seeded into the upper chambers and serum free RPMI 1640 with no MIP-1a was added in lower chamber, then cells in lower chamber were observed at low magnification (×40) after incubation for 5h.**

MIP-1a (macrophage inflammatory protein 1-alpha) also known as Chemokine (C-C motief) ligand 3 (CCL3), is a cytokine belonging to the CC chemokine family that is involved in the recruitment and activation of macrophages, monocytes and neutrophils. In this case, chemotaxis assay used 24-well microchemotaxis system was undertaken to evaluate the chemotactic effect of MIP-1a on the human monocytic cell line THP1. Briefly, THP1 cells were seeded into the upper chambers (100µl cell suspension, 106 cells/ml in RPMI 1640 with 0.5% FBS) and MIP-1a (100ng/mL, diluted in serum free RPMI 1640 ) was added in lower chamber with a polycarbonate filter (8µm pore size) used to separate the two compartments. After incubation at 37oC with 5% CO2 for 5h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×40) and the number of migrated cells were counted at high magnification (×400) randomly (five fields for each filter). By counting migrated cells in low chamber at high magnification (×400) randomly, it was shown that a mean of 41.2 THP1 cells/field migrated towards serum free RPMI 1640 medium with 100ng/mL MIP-1a, while only 3.6 THP1 cells/field migrated towards serum free RPMI 1640 medium. And the migrated THP1 cells in low chamber at low magnification (×40) was shown in Figure 1.

## 注意事项（Note）

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