

Human MIP1 alpha protein, His tag (active)

Cat. No. GTX00096-pro

Application	Functional Assay
Species	Human

Package
10 µg

APPLICATION

Application Note

MIP-1a (macrophage inflammatory protein 1-alpha) also known as Chemokine (C-C motif) 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 THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100 µl cell suspension, 1×10^6 cells/ml in RPMI-1640 with 0.5% FBS) and MIP-1a (100 ng/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 37°C 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. A mean of 41.2 THP-1 cells/field migrated towards serum free RPMI-1640 medium with 100 ng/ml MIP-1a, while only 3.6 THP-1 cells/field migrated towards serum free RPMI-1640 medium.

Observed MW 14 kDa.

PROPERTIES

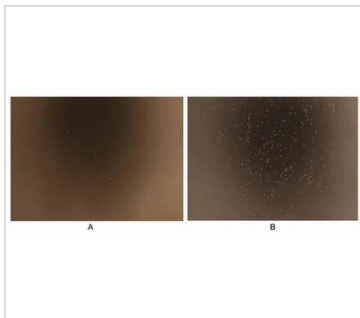
Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal His-Tag; Ser24~Ala92 (NP_002974.1)
Expression System	HEK293 cells
Purity	> 95%
Endotoxin	< 1 EU/µg
Conjugation	Unconjugated
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.



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DATA IMAGES

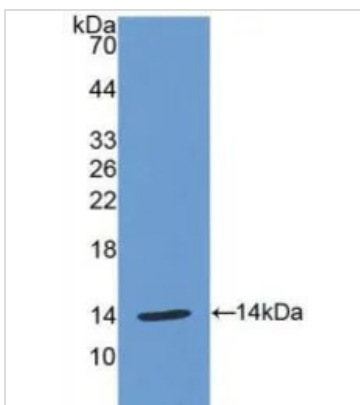


GTx00096-pro Functional Assay Image

The chemotactic effect of GTx00096-pro Human MIP1 alpha protein (active).

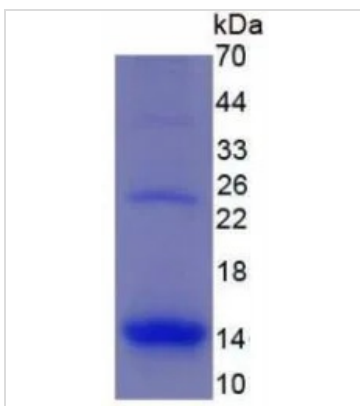
(A) THP-1 cells were seeded into the upper chambers and serum free RPMI-1640 without MIP-1 alpha was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 40$) after incubation for 5hrs.

(B) THP-1 cells were seeded into the upper chambers and serum free RPMI-1640 with 100 ng/ml MIP-1 alpha was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 40$) after incubation for 5hrs.



GTx00096-pro Image

WB analysis of GTx00096-pro Human MIP1 alpha protein (active).



GTx00096-pro Image

SDS-PAGE analysis of GTx00096-pro Human MIP1 alpha protein (active).



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