

Human MIP1 beta protein, His tag (active)

Cat. No. GTX00279-pro

Application	Functional Assay
Species	Human

Package
10 µg

APPLICATION

Application Note

Macrophage inflammatory protein-1 β (MIP-1 β), also known as CCL4 is a CC chemokine with specificity for CCR5 receptors. It is a chemoattractant for natural killer cells, monocytes and a variety of other immune cells. MIP-1 β is a kind of chemotactic cytokine. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of MIP-1 β on the human T-lymphocyte leukemia cell line Jurkat. Briefly, Jurkat cells were seeded into the upper chambers (100 µl cell suspension, 5x10⁵ cell/ml in RPMI-1640 with FBS free) and recombinant human MIP-1 β (0.0001 ng/ml, 0.001 ng/ml, 0.1 ng/ml, 1 ng/ml, 10 ng/ml, 100 ng/ml diluted separately 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 2h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high magnification (×200) randomly. The recombinant human MIP-1 β is able to induce migration of Jurkat cells.

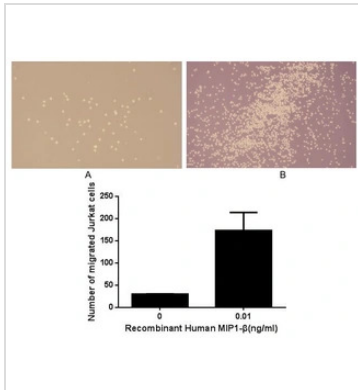
Observed MW 14 kDa.

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; Ala24~Asn92 (NP_002975.1)
Expression System	E. coli
Purity	> 97%
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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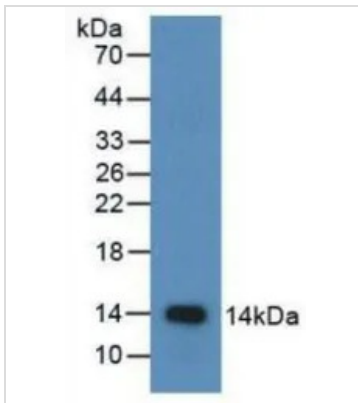
DATA IMAGES

GTx00279-pro Functional Assay Image

The chemotactic effect of GTX00279-pro Human MIP1 beta protein (active).

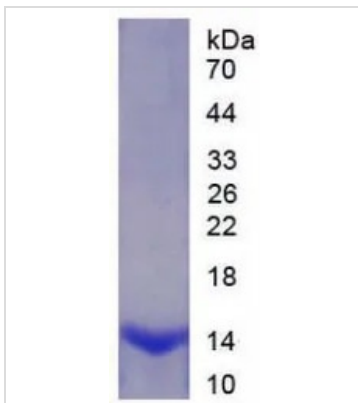
Upper: (A) Jurkat cells were seeded into the upper chambers and serum free RPMI-1640 without MIP-1 beta was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 2hrs.

(B) Jurkat cells were seeded into the upper chambers and serum free RPMI-1640 with 0.01 ng/ml MIP-1 beta was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 2hrs.

Lower: The number of migrated cells were counted at high magnification ($\times 200$) randomly (five fields for each filter).


GTx00279-pro Image

WB analysis of GTX00279-pro Human MIP1 beta protein (active).


GTx00279-pro Image

SDS-PAGE analysis of GTX00279-pro Human MIP1 beta protein (active).



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