Active Macrophage Inflammatory Protein 3 Alpha (MIP3a)

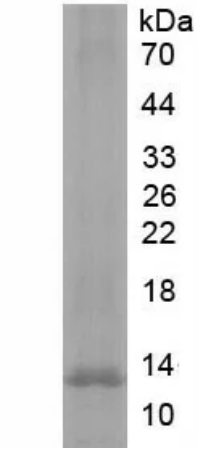
Catalog#:PXH12168

概述（Summary）

别称（Alternative Names）	CCL20; CKb4; LARC; MIP3-A; SCYA20; ST38; Small Inducible Cytokine Subfamily A(Cys-Cys)Member 20; Beta-Chemokine Exodus-1; Liver And Activation-Regulated Chemokine
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）	【Ala27-Met96】
Accession #	P78556
表达宿主（Host）	-
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 PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Acts as a ligand for C-C chemokine receptor CCR6. Signals through binding and activation of CCR6 and induces a strong chemotactic response and mobilization of intracellular calcium ions. The ligand-receptor pair CCL20-CCR6 is responsible for the chemotaxis of dendritic cells (DC), effector/memory T-cells and B-cells and plays an important role at skin and mucosal surfaces under homeostatic and inflammatory conditions, as well as in pathology, including cancer and various autoimmune diseases. CCL20 acts as a chemotactic factor that attracts

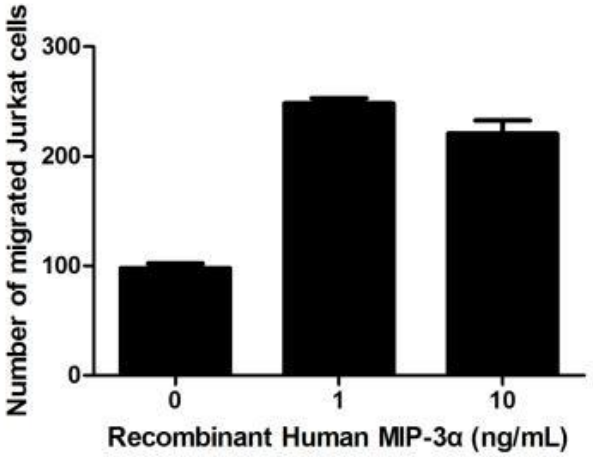
lymphocytes and, slightly, neutrophils, but not monocytes. Involved in the recruitment of both the proinflammatory IL17 producing helper T-cells (Th17) and the regulatory T-cells (Treg) to sites of inflammation. Required for optimal migration of thymic natural regulatory T cells (nTregs) and DN1 early thymocyte progenitor cells. C-terminal processed forms have been shown to be equally chemotactically active for leukocytes. Positively regulates sperm motility and chemotaxis via its binding to CCR6 which triggers Ca2+ mobilization in the sperm which is important for its motility. Inhibits proliferation of myeloid progenitors in colony formation assays. May be involved in formation and function of the mucosal lymphoid tissues by attracting lymphocytes and dendritic cells towards epithelial cells. Possesses antibacterial activity towards E.coli ATCC 25922 and S.aureus ATCC 29213.

电泳图（SDS-PAGE image）



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

活性图（Bioactivity image）



Macrophage Inflammatory Protein 3 Alpha (MIP-3α), also known as LARC (liver and activation-regulated chemokine), Exodus-1 or CCL20, is a CC chemokine with a selective chemotactic activity for lymphocytes and dendritic cells (DCs). MIP3α is produced by activated cells, including monocytes, T cells, endothelial cells, epithelial cells, and fibroblasts and is expressed in liver, lung, and some lymphoid tissues. This chemokine elicits its effects on its target cells by binding to the chemokine receptor CCR7. It attracts certain cells of the immune system, including dendritic cells and antigen-engaged B cells, CCR7 central-memory T-Cells. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of recombinant human MIP-3α on the Jurkat cell line. Briefly, Jurkat cells were seeded into the upper chambers (200μL cell suspension,106 cells/mL in RPMI 1640 with FBS free) and MIP-3α (0.01ng/mL, 0.1ng/mL, 1ng/mL, 10ng/mL,100ng/mL and 1000ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8 μm pore size) used to separate the two compartments. After incubation at 37℃ 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 (×400) randomly (five fields for each filter). Result shows MIP-3α is able to induce migration of Jurkat cells. The migrated Jurkat cells in low chamber at low magnification (×100) were shown in Figure 1. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). Statistical results were shown in Figure 2. The optimum chemotaxis of recombinant human MIP-3α occurs at 1-10ng/mL. Figure 2. The chemotactic effect of recombinant human MIP-3α on Jurkat cells

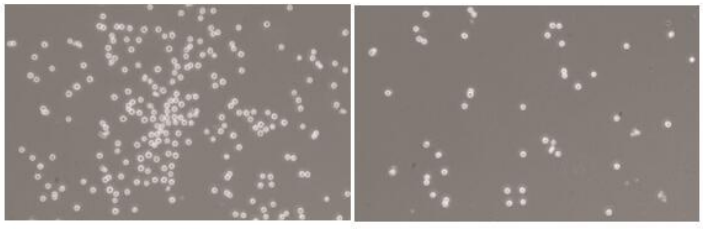


Figure 1. The chemotactic effect of recombinant human MIP-3α on Jurkat cells

(A) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 with 10ng/mL MIP-3α was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 2h;
(B) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 without MIP-3α was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 2h.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.