

Rev03
Update: Dec,14,2021

DATASHEET

MIP-1 α /CCL3, Mouse

Cat. No.: Z03270

Product Introduction

Species	Mouse
Protein Construction	MIP-1 α (Ala24-Ala92) Accession # Q5QNW0
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	< 0.2 EU/ μ g of protein by gel clotting method
Biological Activity	The EC ₅₀ value of mouse MIP-1 α /CCL3 on Ca ²⁺ mobilization assay in CHO-K1/G α 15/mCCR1 cells (human G α 15 and mouse CCR1 stably expressed in CHO-K1 cells) is less than 100.0 ng/ml.
Expression System	HEK 293
Apparent Molecular Weight	~7.8 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH ₂ O or PBS up to 100 μ g/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Background

Target Background : MIP-1 Alpha, also known as CCL3, G0S19-1 and SCYA3, LD78 alpha, is an inflammatory chemokine. MIP-1 α belongs to the CCL chemokine family, and shares 68% homology with MIP-1 β . The mature form of MIP-1 α contains 69 amino acids, exists as dimers in solution, and tends to undergo reversible aggregation. It binds to CCR1, CCR4 and CCR5, and participates in the host response to invading pathogens by regulating the trafficking and activation of inflammatory cells, such as macrophages, lymphocytes, NK cells and dendritic cells. MIP-1 alpha polymorphisms are associated with HIV susceptibility or resistance. Recombinant MIP-1 alpha induces a dose-dependent inhibition of HIV and SIV infection. Upon stimulation by endogenous and exogenous agents such as Interleukin-1 β , Interferon- γ , and lipoteichoic acid from gram-positive bacteria, monocytes are able to secrete significant amounts of MIP-1 α . MIP-1 α augments the adhesions of T lymphocytes, monocytes, and neutrophils to vascular cell adhesion molecule 1. Additionally, in wounds, MIP-1 α chemoattracts macrophages in order to accelerate the tissue repair process.

Synonyms : Macrophage Inflammatory Protein-1 α ; CCL-3; LD78 α ; LD78 alpha

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.