

DATASHEET
Version 20181206**MIP-1 α /CCL3, Human****Cat. No.:** Z03131-1**Size:** 1.0 mg**Synonyms:** Macrophage Inflammatory Protein-1 α , CCL3, LD78 α **Description:**

MIP-1 α /CCL3, also known as LD78 α , 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. The receptors of MIP-1 α *in vivo* are mainly the G-protein coupled receptors CCR1 and CCR5. 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. In addition, in wounds, MIP-1 α chemo-attracts macrophages in order to accelerate the tissue repair process.

Recombinant human MIP-1 α /CCL3 (rhMIP-1 α) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 70 amino acids. A fully biologically active molecule, rhMIP-1 α has a molecular mass of 7.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

00001 ASLAADTPTA CCFSYTSRQI PQNFIADYFE TSSQCSKPGV
00041 IFLTKRSRQV CADPSEEWVQ KYVSDLELSA

Source: *E. coli***Species:** Human

Biological Activity: ED₅₀ < 80 ng/mL, measured by the FLIPR assay using CHO cells transfected with human CCR5, the receptor of human CCL3, corresponding to a specific activity of > 1.25 $\times 10^4$ units/mg.

Molecular Weight: 7.8 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/ μ g, determined by LAL method.

Storage: Lyophilized recombinant human MIP-1 α /CCL3 (rhMIP-1 α) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhMIP-1 α remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.