

**BACKGROUND**

Macrophage Inflammatory Protein-1 alpha (MIP-1 $\alpha$ ), also known as CCL3, is produced by macrophages and is thought to induce inflammatory responses, including superoxide production by neutrophils. MIP-1 $\alpha$  can exist as a naturally occurring heterodimer with MIP-1 $\beta$  and has been shown to have antiviral activity against HSV-1.

Recombinant rat MIP-1 $\alpha$  is a non-glycosylated protein, containing 69 amino acids and having a molecular mass of 7.8 kDa.

**Alternative Names:**

CCL3, LD78 $\alpha$

**Amino Acid Sequence:**

APYGADTPTA CCFSYGRQIP RKFIADYFET SSLCSQPGVI  
FLTQRNRQIC ADPKETWVQE YITELELNA

**TECHNICAL INFORMATION**

**Source:** *E.coli*

**Physical Appearance:**

Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Recombinant rat MIP-1 $\alpha$  is lyophilized with no additives.

**Stability:**

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**

The activity is calculated by the ability to chemoattract of Balb3/C splenocytes at 1-10 ng/mL.

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

