

# Human CCL4/MIP-1, Tag Free Protein

HA211213



<b>Product name:</b>	Human CCL4/MIP-1, Tag Free
<b>Species reactivity:</b>	Human
<b>Bio-Activity:</b>	Testing in progress.
<b>Protein construction description:</b>	A DNA sequence encoding the human CCL4/MIP-1 protein (P13236) (Ala 24-Asn 91, F36A) was expressed with tag free.

**Background:** Chemokine (C-C motif) ligands 4 (also CCL4) previously known as macrophage inflammatory protein (MIP-1 $\beta$ ), is a protein which in humans is encoded by the CCL4 gene. CCL4 belongs to a cluster of genes located on 17q11-q21 of the chromosomal region. Identification and localization of the gene on the chromosome 17 was in 1990 although the discovery of MIP-1 was initiated in 1988 with the purification of a protein doublet corresponding to inflammatory activity from supernatant of endotoxin-stimulated murine macrophages. At that time, it was also named as "macrophage inflammatory protein-1" (MIP-1) due to its inflammatory properties. CCL4 is a small cytokine that belongs to the CC chemokine subfamily. CCL4 is being secreted under mitogenic signals and antigens and hereby acts as a chemoattractant for natural killer cells, monocytes and various other immune cells in the site of inflamed or damaged tissue.

**Purity:** >95% as determined by SDS-PAGE.

**Endotoxin:** Less than 1.0 EU per  $\mu$ g by the LAL method.

**Fragment region:** CCL4/MIP-1 (24-92, F36A)

**Source:** HEK293

**Accession:** P13236

**Predicted molecular mass:** 8.5 kD

**Formulation:** Lyophilized from a 0.2  $\mu$ m filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.

**Reconstitution:** Reconstitute at 250  $\mu$ g/ml in sterile water.

**Storage:** Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Hangzhou Huaan Biotechnology Co., Ltd.

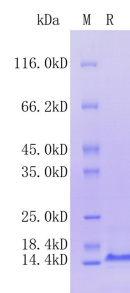
Orders: 0086-571-88062880

Technical: 0086-571-89986345

Service mail: support@huabio.cn

 华安生物  
HUABIO  
www.huabio.cn

Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation



**Fig1:** Protein on SDS-PAGE under reducing (R) condition.

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.