

# 8445

## Human C-C Motif Chemokine 3 (hCCL3/MIP-1-α)



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| <b>MW (kDa):</b><br>8 | UniProt ID:<br>#P10147 | Entrez-Gene Id:<br>6348  |
|-----------------------|------------------------|--|
| Background            |                        | CCL3, also know as MIP-1- $\alpha$ , or LD78 $\alpha$ , is an 8 kDa member of the C-C family of chemokines, which play key roles in immune surveillance, inflammation, and infection (1). CCL3 shares 68% amino acid identity with CCL4 (MIP-1- $\beta$ ) and 94% amino acid identity with LD78 $\beta$ (1). CCL3 is produced by activated monocytes, activated macrophages, NK cells, and T cells among others (1). There are two receptors for CCL3: CCR1 and CCR5 (1). CCL3 inhibits R5 HIV-1 infection by competing with the virus for its coreceptor, CCR5 (1). CCL3 polymorphisms are associated with risk for the development of rheumatoid arthritis and ulcerative colitis (2,3). |
| Endotoxin             |                        | Less than 0.01 ng endotoxin/1 μg hCCL3.  |
| Purity                |                        | >98% as determined by SDS-PAGE of 6 $\mu g$ reduced (+) and non-reduced (-) recombinant hCCL3. All lots are greater than 98% pure.   |
| Source / Purification |                        | Recombinant human CCL3 (hCCL3) Ala27-Ala92 (Accession #NP_002974) was produced in <i>E. coli</i> at Cell Signaling Technology.   |
| Bioactivity           |                        | The activity of hCCL3 was determined using a THP-1 cell migration assay. The $ED_{50}$ of each lot is between 0.5-1.2 ng/ml.   |
| Background References |                        | 1. Menten, P. et al. (2002) <i>Cytokine Growth Factor Rev</i> 13, 455-81.<br>2. Zhang, R. et al. (2010) <i>Int J Immunogenet</i> 37, 273-8.<br>3. Li, K. et al. (2009) <i>Int J Colorectal Dis</i> 24, 13-7.   |

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