

Active Recombinant Canine Chemokine (C-C motif) Ligand 4

Cat. No. CCL4-421C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Canine CCL4 is expressed in E. coli, which has a molecule weight of 7.8 kDa. Ala24 Asn92.
Species	Canine
Source	E.coli
Description	CCL4, also known as macrophage inflammatory protein 1 beta (MIP1 β), is a 12 kDa β chemokine that is secreted at sites of inflammation by activated leukocytes, lymphocytes, vascular endothelial cells and pulmonary smooth muscle cells. CCL4 attracts a variety of immune cells to sites of microbial infection as well as to other pathologic inflammations such as allergic asthma and ischemic myocardium. The first two N-terminal amino acids can be cleaved from human CCL4 by CD26/DPPIV. Both the full length and truncated forms exert biological activity through CCR5, and the truncated form additionally interacts with CCR1 and CCR2. In humans, the ability of CCL4 to bind CCR5 inhibits the cellular entry of M-tropic HIV1 which utilizes CCR5 as a coreceptor. Both forms of CCL4 block HIV1 infection of T cells by inducing the downregulation of CCR5. Mature canine CCL4 shares 80%–84% amino acid sequence identity with human, mouse, and rat CCL4.
Form	Lyophilized from a 0.2 μ m filtered solution in PBS with BSA as a carrier protein.
N-terminal Sequence	Ala24
Molecular Weight	7.8 kDa

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Activity	Measured by its ability to chemoattract human CCR5 transfected BaF3 mouse pro-cells. The ED50 for this effect is typically 0.753.5 ng/mL.
Purity	>95%, by SDS PAGE under reducing conditions and visualized by silver stain.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Reconstitution	Reconstitute at 100 µg/mL in PBS that containing at least 0.1% human or bovine serum albumin.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Official Symbol	CCL4

GENE INFORMATION

Gene Name	CCL4 chemokine (C-C motif) ligand 4 [<i>Canis lupus familiaris</i>]
Synonyms	CCL4; chemokine (C-C motif) ligand 4; SCYA4; MIP-1-beta; AT744.1; MIP1B; MIP1B1; ACT2; Act-2; ACT-2; G-26; HC21; LAG-1; LAG1; SCYA2; MIP-1-beta(1-69); SIS-gamma; PAT 744; MGC104418; MGC126025; MGC126026; T-cell activation protein 2; OTTHUMP00000163963; C-C motif chemokine 4; CC chemokine ligand 4; lymphocyte-activation gene 1; secreted protein G-26; Protein H400; small inducible cytokine A4 (homologous to mouse Mip-1b); Lymphocyte activation gene 1 protein; Macrophage inflammatory protein 1-beta; Small-inducible cytokine A4; G-26 T-lymphocyte-secreted protein
Gene ID	448786

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mRNA Refseq	NM_001005250
Protein Refseq	NP_001005250
UniProt ID	Q68AZ0
Chromosome Location	9
Pathway	Chemokine signaling pathway; Cytokine-cytokine receptor interaction; Cytosolic DNA-sensing pathway; Salmonella infection
PDB rendering based on 1hum.	