

DATASHEET
Version 20181206**LAG-1/CCL4L1, Human****Cat. No.:** Z03215-50**Size:** 50.0 ug**Synonyms:** Lymphocyte Activation Gene-1, CCL4L1, ACT-2, T-cell activation-2, HC21**Description:**

Lymphocyte Activation Gene-1(Lag-1) , also known as C-C motif chemokine 4-like (CCL4L1), is a proinflammatory chemokine and is the isoform of Macrophage Inflammatory Protein-1 beta (MIP-1 beta). LAG-1 was first identified in 1988 and is expressed by monocytes, macrophages, T and B lymphocytes, and dendritic cells upon stimulation. The receptors of LAG-1 are the G-protein coupled receptors CCR1, CCR3, and CCR5 which is its major receptor. LAG-1 is a potent chemoattractant of monocytes, T lymphocytes, dendritic cells, natural killer cells, and activated CD4+ T cells. Unlike CCL4, LAG-1 cannot bind to glycosaminoglycans (GAGs), and thus cannot form an *in vivo* gradient on the cell surface as does CCL4. Like other members of the MIP-1 subfamily, LAG-1 is associated with several types of disease, including HIV infection and Type I diabetes.

Recombinant human LAG-1/CCL4L1 produced in *E. coli* is a single non-glycosylated polypeptide chain containing 69 amino acids. A fully biologically active molecule, rhLAG-1/CCL4L1 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 APMGSDPPTA CCFSYTARKL PRNFVVDYYE TSSLCSQPAV
00041 VFQTKRGKQV CADPSESQVQ EYVVDLELN

Source: *E. coli*

Biological Activity: The EC₅₀ value of human LAG-1 on Ca²⁺ mobilization assay in CHO-K1/Gα15/hCCR5 cells (human Gα15 and human CCR5 stably expressed in CHO-K1 cells) is less than 50 ng/ml.

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 µg/ml.

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

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

Storage: Lyophilized recombinant Human LAG-1/CCL4L1 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human LAG-1/CCL4L1 should be stable up to 1 week at 4°C or up to 3 months at -20°C.