DATASHEET
Version 20181206

LD78-β/CCL3L1, Human

Cat. No.: Z03226-5

Size: 5.0 ug

Synonyms: SCYA3L1

Description:

LD78-beta/CCL3L1 is a proinflammatory chemokine and the isoform of Macrophage Inflammatory Protein-1 alpha (MIP-1 alpha). LD78-beta is secreted by most mature leukocytes, predominantly macrophages, and its major receptor is the G-protein coupled receptor CCR5, which is also the co-receptor used by the HIV-1 virus for cell entry. LD78-beta has superior antiviral activity and induces a variety of immune cells, particularly $CD8^+$ T cells and immature dendritic cells. LD78-beta attracts lymphocytes and macrophages to sites of inflammation and infection, and its functions are inhibited by Interleukin-4, Interleukin-10, and Interleukin-13. Importantly, the copy number variation of LD78-beta is associated with HIV susceptibility, indicating LD78-beta's critical role in the disease.
Recombinant human LD78-beta/CCL3L1 (rhLD78-beta) produced in *E.coli* is a single non-glycosylated polypeptide chain containing 70 amino acids. A fully biologically active molecule, rhLD78-beta has a molecular mass of 7.8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 APLAADTPTA CCFSYTSRQI PQNFIADYFE TSSQCSKPSV
00041 IFLTKRGRQV CADPSEEWVQ KYVSDLELSA
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50}< 0.4 μg/mL, measured by the FLIPR assay using CHO cells transfected with human CCR5, the receptor of human CCL3L1, corresponding to a specific activity of > 2.5×10^3 units/mg.

Molecular Weight: 7.8 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O at 100 μg/mL.

Purity: > 95% by SDS-PAGE and HPLC analysis.

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

Storage: Lyophilized recombinant human LD78-beta/CCL3L1 (rhLD78-beta) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhLD78-beta remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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