

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant LD78-β/CCL3L1, Human

Catalog Number: BK0119-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

7.8 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE and HPLC analysis.

Biological Activity:

ED50 < 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 > 2.5×10³ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

APLAADTPTACCFSYTSRQIPQNFADYFETSS-
QCSKPSVIFLT-
KRGRQVCADPSEEWVQKYVSDLELSA

Endotoxin:

< 0.2 EU/μg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μg/mL.

Storage:

Lyophilized recombinant human LD78-beta/CCL3L1 (rhLD78-beta) remains stable up to 6 months at -80 °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.

Usage:

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