

Rev03  
Update: Dec,14,2021

**DATASHEET**

# LD78- $\beta$ /CCL3L1, Human

Cat. No.: Z03226

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	<b>CCL3L1 (Ala24-Ala93)</b> Accession # P16619
<b>Purity</b>	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
<b>Endotoxin Level</b>	< 0.2 EU/ $\mu$ g of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 0.4 $\mu$ g/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 $\times$ 10 <sup>3</sup> units/mg.
<b>Expression System</b>	E. coli
<b>Apparent Molecular Weight</b>	~7.8 kDa, on SDS-PAGE under reducing conditions.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O up to 100 $\mu$ g/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## Background

**Target Background :** 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<sup>+</sup> 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.

**Synonyms :** SCYA3L1

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.