

Overview

Synonyms	SCYA3L1
Description	<p>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.</p> <p>Recombinant human LD78-beta/CCL3L1 (rhLD78-beta) produced in <i>E.coli</i> 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.</p>
Accession No	P16619
Species	Human
Source	<i>E. coli</i>
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.
Sequence	APLAADTPTA CCFSYTSRQI PQNFIADYFE TSSQCSKPSV IFLTKRGRQV CADPSEEWVQ KYVSDLELSA

Properties

Measured Molecular Weight	7.8 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analysis.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.
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.
Note	For research use only

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