

# DLL1 (soluble) (human), (recombinant)

## Notch ligand

Notch signalling pathways play key roles in cell-fate determination and differentiation in many tissues during embryonic and postnatal development. Notch ligands are divided into two subclasses, the delta and the serrate family. Delta-like 1, 3, and 4 (DLL1, -3, -4), JAG1 and JAG2 with DSL (Delta, Serrate, Lag2) domain are typical Notch ligands, while DNER, F3/Contactin and NB-3 without DSL domain are atypical Notch ligands. Notch-ligand binding to NOTCH1, -2, -3, or -4 receptor induces the receptor proteolysis by metalloprotease and  $\gamma$ -secretase to release Notch intracellular domain (NICD).

Human sDLL-1 comprises the extracellular signaling domain of DLL1, a member of a structurally-related family of single-pass type I trans-membrane proteins that serve as ligands for Notch receptors. It is expressed in the heart and pancreas, and to a lesser extent in various other tissues. DLL-1 functions to specifically activate the Notch-1 and Notch-2 receptors. The Notch signaling pathway regulates endothelial-cell differentiation, proliferation and apoptosis, and is essential for the development, maintenance and remodeling of the vascular system. DLL-1 suppresses differentiation of hematopoietic progenitor cells into the B-cell lineage while promoting differentiation to T-cell and NK cell precursors.

Citations: 2

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## Ordering Information

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ALX-201-765-0025	25 $\mu$ g
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## Manuals, SDS & CofA

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## Handling & Storage

<b>Use/Stability</b>	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted sDLL-1 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C.
<b>Handling</b>	Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C.
<b>Long Term Storage</b>	-20°C
<b>Shipping</b>	Blue Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

<b>Activity</b>	Inhibits adipogenesis of mesenchymal stem cells.
<b>Alternative Name</b>	Delta-like protein 1, Delta1
<b>Biological Activity</b>	Determined by the dose dependent growth suppression of the human acute monocytic leukemia cell line, THP-1. sDLL-1 inhibits the proliferation in THP-1 cells using a concentration of 3-5 µg/ml.
<b>Endotoxin Content</b>	< 0.1 ng per µg of sDLL-1.
<b>Formulation</b>	Lyophilized from 1X PBS, pH 7.5.
<b>GenBank ID</b>	28514
<b>MW</b>	~57-60kDa
<b>Purity</b>	≥95% (SDS-PAGE and HPLC)
<b>Reconstitution</b>	Centrifuge the vial prior to opening. Reconstitute in water at a concentration of 0.1 – 1mg/ml. Do not vortex. For long term storage, it is recommended to dilute further in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**Source** Produced in HEK 293 cells. Recombinant human sDLL-1 contains 522 amino-acid residues.



UniProt ID

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