



LD Biopharma, Inc.
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Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human **DEL1** Protein
Catalog Number: HRP-3280
Manufacturer: LD Biopharma, Inc. USA

Introduction

Human EGF-like repeat and discoidin I-like domain-containing protein 3 (DEL-1) gene encode a secreted protein which promotes adhesion of endothelial cells through interaction with the $\alpha v/\beta 3$ integrin receptor. It inhibits formation of vascular-like structures. DEL-1 may also be involved in regulation of vascular morphogenesis of remodeling in embryonic development. Recent data indicated that DEL-1 increased RUNX1 and FOXP3 expression in human CD4+CD25- conventional T (Tconv) cells, promoting their conversion into induced Tregs with increased stability, accompanied by increased demethylation of the Treg-specific demethylated region (TSDR) and enhanced suppressive activity.

Full-length secreted form of human DEL1 cDNA (24 – 480aa) was constructed with codon optimization gene synthesis and expressed with a human N-terminal T7-His-TEV cleavage site Tag (29aa) fusion. This protein was expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol:	DEL1	(EDIL3)
Accession Number:	NP_005702	
Species:	Human	
Size:	50 μ g / Vial	
Composition:	1mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.	
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.	

Key References



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Xiaofei Li et al, *The DEL-1/ β 3 integrin axis promotes regulatory T cell responses during inflammation resolution*, Journal of Clinical Investigation (2020). DOI: 10.1172/JCI137530

Kourtzelis I, et al. *DEL-1 promotes macrophage efferocytosis and clearance of inflammation*. *Nat Immunol*. 2019; 20(1):40-49.

Hanayama R, et al., *Expression of developmental endothelial locus-1 in a subset of macrophages for engulfment of apoptotic cells*. *J Immunol*. 2004; 172(6):3876-3882.

Applications

1. May be used for in vitro DEL1 mediated T lymphocyte or endothelial cell activities regulation study with this protein either as soluble factor or as coating matrix protein.
2. May be used for DEL1 protein-protein interaction assay.
3. Potential therapeutic protein, which may be used as anti-inflammatory reagent for various diseases therapy, such as multiple sclerosis or allergic asthma et al.
4. As native human DEL1 antigen for its specific antibody production.

Quality Control

Purity: > 92 % by SDS-PAGE.

Recombinant Human DEL1 Protein Sequence (55.6 kD)

MASMTGGQOMGRGHHHHHENLYFQGGEFGSENLYFQDI CDPNPCENGGICLPGLADGSFSC
CPDGFTDPNCSSVVEVASDEEEPT SAGPCTPNPCHNGGTCEI SEAY RGDTFIGYVCKCPRGFNG
IHCQHNINECEVEPCKNGGICTDLVANYSCECPGEFMGRNCQYKCSGPLGIEGGIISNQQITAS
STHRALFGLQKWYPYARLNKKGLINAWTAAENDRWPWIQINLQRKMRVTGVITQGAKRIGSPE
YIKSYKIAYSNDGKTWAMYKVKGTNEDMVFGRNIDNNTPYANSFTPPIKAQYVRLYPQVCRRH
TLRMELLLGCELSGCSEPLGMKSGHIQDYQITASSIFRTLNMDFMTWEPRKARLDKQGVNAWTS
GHNDQSQWLQVDLLVPTKVTGIITQGAKDFGHVQFVGSYKLAYSNDGEHWTVYQDEKQRKDKVF
QGNFDNDTHRKNVIDPPIYARHIRILPWSWYGRITLRSELLGCTEEE