Biotinylated Human DLL1 / Delta1 Protein, His,Avitag™, premium grade

Catalog # DL1-H82E5

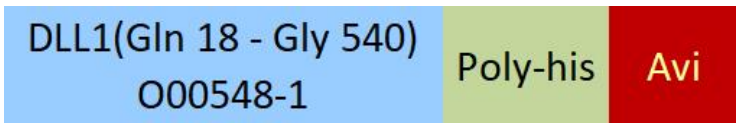
Synonym

DLL1,Delta1,H-Delta-1

Source

Biotinylated Human DLL1 Protein, His,Avitag, premium grade(DL1-H82E5) is expressed from human 293 cells (HEK293). It contains AA Gln 18 - Gly 540 (Accession # O00548-1).
Predicted N-terminus: Gln 18
It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 60.1 kDa. The protein migrates as 60-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 0.01 EU per μg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

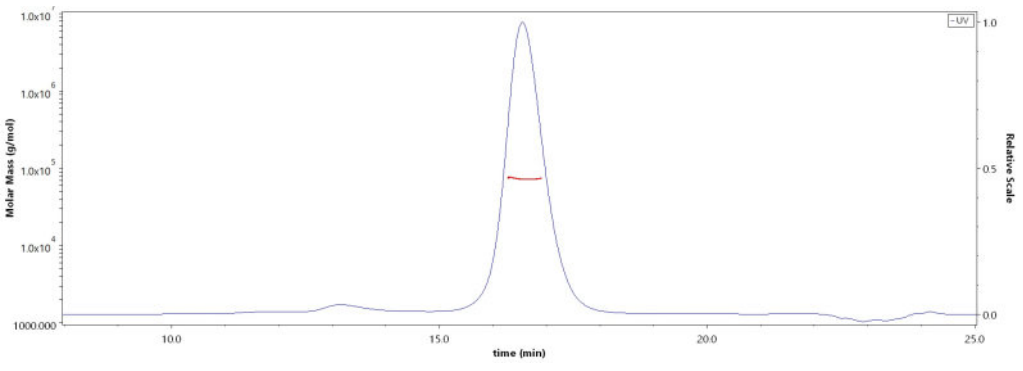
Please avoid repeated freeze-thaw cycles.

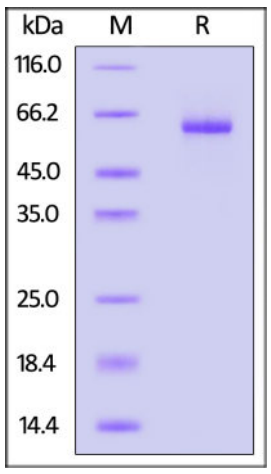
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

SEC-MALS

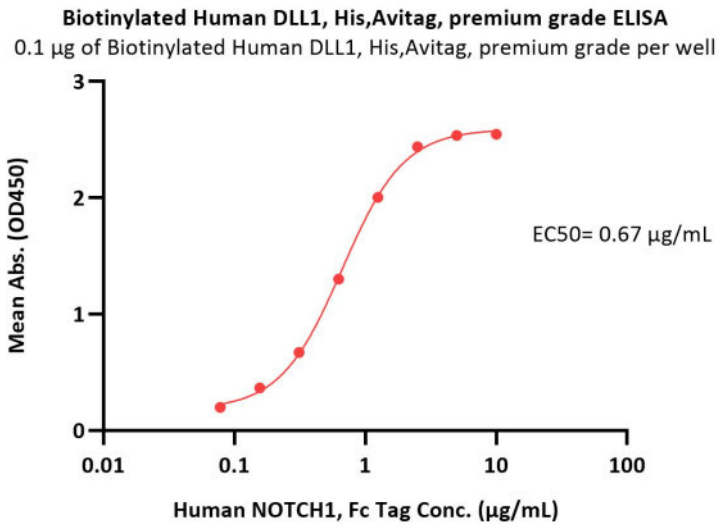




Biotinylated Human DLL1 Protein, His,Avitag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

The purity of Biotinylated Human DLL1 Protein, His,Avitag, premium grade (Cat. No. DL1-H82E5) is more than 90% and the molecular weight of this protein is around 60-80 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human DLL1 Protein, His,Avitag, premium grade (Cat. No. DL1-H82E5) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with a linear range of 0.078-1.25 μg/mL (QC tested).

Background

Delta-like protein 1 (DLL1) is also known as Drosophila Delta homolog 1 (Delta1 or H-Delta-1), which contains one DSL domain and eight EGF-like domains. DLL1 is ubiquitinated by MIB (MIB1 or MIB2), leading to its endocytosis and subsequent degradation. As for expression, DLL1 is expressed in heart and pancreas, with lower expression in brain and muscle and almost no expression in placenta, lung, liver and kidney. Furthermore, DLL1 acts as a ligand for Notch receptors. Also, DLL1 can block the differentiation of progenitor cells into the B-cell lineage while promoting the emergence of a population of cells with the characteristics of a T-cell/NK-cell precursor.

Clinical and Translational Updates