Biotinylated Human DLL4 Protein, His,Avitag™, premium grade

Catalog # DL4-H82E6

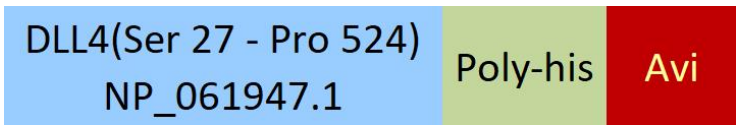
Synonym

DLL4,Delta4

Source

Biotinylated Human DLL4, His,Avitag, premium grade(DL4-H82E6) is expressed from human 293 cells (HEK293). It contains AA Ser 27 - Pro 524 (Accession # NP_061947.1).
Predicted N-terminus: Ser 27
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.
GMP-DL4H23 is the GMP version of this DL4-H82E6. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stag to later clinical phases.

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 57.9 kDa. The protein migrates as 61 kDa±3 kDa when calibrated against Star Ribbon Pre-stained Protein Marker 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.

Biotinylation

As determined by Quantitative ELISA binding assay against streptavidin.

Endotoxin

Less than 0.01 EU per μg by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/μg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/μg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>95% 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.

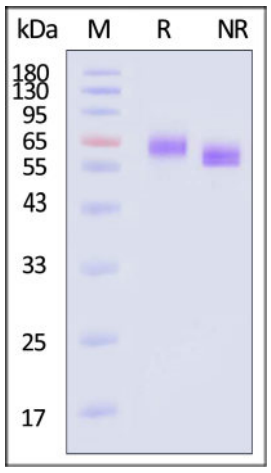
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

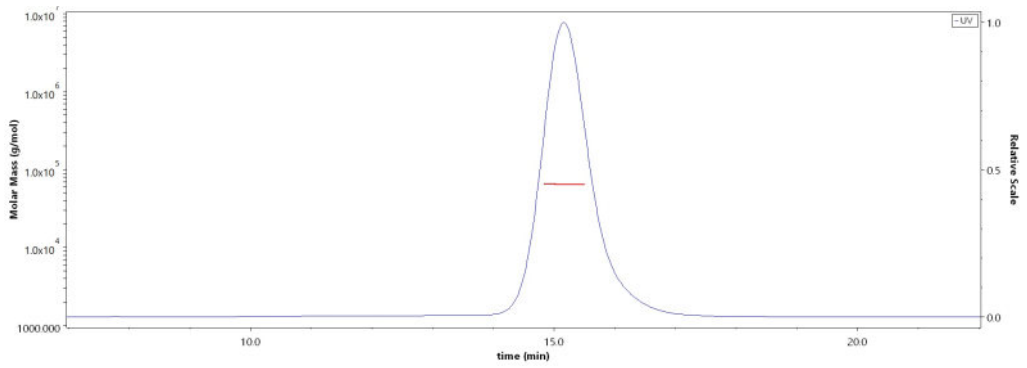
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

SEC-MALS

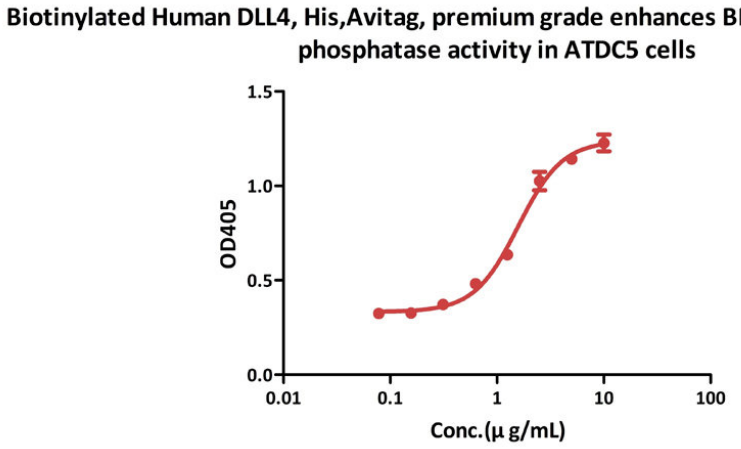


Biotinylated Human DLL4, His,Avitag, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).



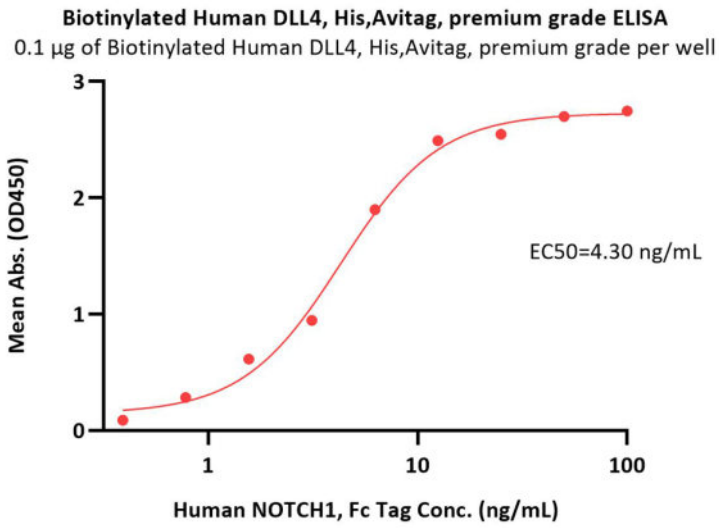
The purity of Biotinylated Human DLL4, His,Avitag, premium grade (Cat. No. DL4-H82E6) is more than 95% and the molecular weight of this protein is around 55-80 kDa verified by SEC-MALS.
Report

Bioactivity-CELL BASE



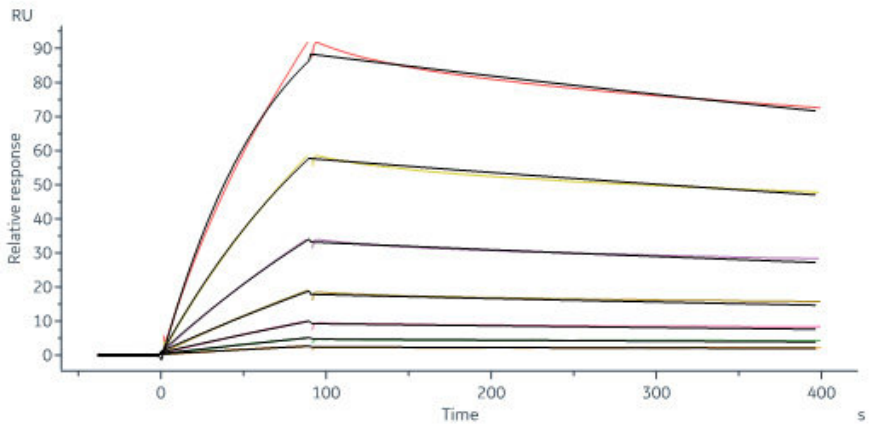
Biotinylated Human DLL4, His,Avitag, premium grade (Cat. No. DL4-H82E6) enhances Human BMP-2 Protein, premium grade (Cat. No. BM2-H4117) induced alkaline phosphatase activity in ATDC5 cells. The EC50 for this effect is 1.579 μg/mL (Routinely tested).

Bioactivity-ELISA



Immobilized Monoclonal Anti-Human DLL4 Antibody, Human IgG1 at 1 μg/mL (100 μL/well) can bind Biotinylated Human DLL4, His,Avitag, premium grade (Cat. No. DL4-H82E6) with a linear range of 0.1-2 ng/mL (Routinely tested).

Bioactivity-SPR



Biotinylated Human DLL4, His,Avitag, premium grade (Cat. No. DL4-H82E6) immobilized on CM5 Chip can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with an affinity constant between 1.00 nM - 30.0 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Background

Delta-like protein 4 (DLL4) is also known as Drosophila Delta homolog 4 (Delta4), which contains one DSL domain and eight EGF-like domains. DLL4 is expressed in vascular endothelium. DLL4 is involved in the Notch signaling pathway as Notch ligand, which can activates NOTCH1 and NOTCH4. DLL4 is involved in angiogenesis and negatively regulates endothelial cell proliferation and migration and angiogenic sprouting. DLL4 can bind to Notch-1 and Notch-4.