

## Synonym

DLL4,Delta4

#### Source

Human DLL4 Protein, Fc Tag (PBS version), premium grade(DL4-H5254) 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. 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**

DLL4(Ser 27 - Pro 524) Fc(Pro 100 - Lys 330) NP\_061947.1 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 80.7 kDa. The protein migrates as 90 kDa±3 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.01 EU per µg by the LAL method.

# **Protein A**

<5 ppm of protein tested by ELISA.

# **Host Cell Protein**

 $< 0.5 \text{ ng/}\mu\text{g}$  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.

#### **Formulation**

Lyophilized from  $0.22~\mu m$  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.

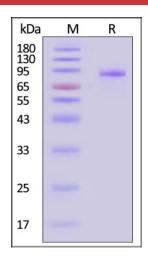
**SDS-PAGE** 



# Human DLL4 Protein, Fc Tag (PBS version), premium grade



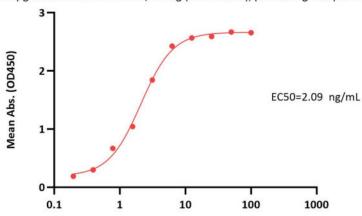




Human DLL4 Protein, Fc Tag (PBS version), premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

## **Bioactivity-ELISA**

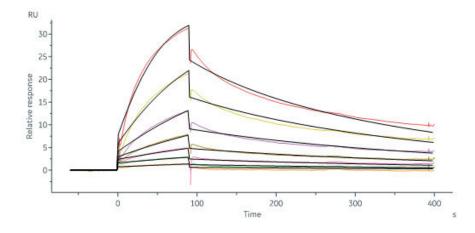
Human DLL4 Protein, Fc Tag (PBS version), premium grade ELISA 0.1  $\mu$ g of Human DLL4 Protein, Fc Tag (PBS version), premium grade per well



Monoclonal Anti-Human DLL4 Antibody, Human IgG1 Conc. (ng/mL)

Immobilized Human DLL4 Protein, Fc Tag (PBS version), premium grade (Cat. No. DL4-H5254) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind Monoclonal Anti-Human DLL4 Antibody, Human IgG1 with a linear range of 0.2-3 ng/mL (Routinely tested).

# **Bioactivity-SPR**



Human DLL4 Protein, Fc Tag (PBS version), premium grade (Cat. No. DL4-H5254) captured on Protein A Chip can bind Human NOTCH1 Protein, His Tag, premium grade (Cat. No. NO1-H52H3) with an affinity constant between 1.00 nM - 150 nM as determined in a SPR assay (Biacore 8K) (QC tested).



# Human DLL4 Protein, Fc Tag (PBS version), premium grade

Catalog # DL4-H5254



# **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.

**Clinical and Translational Updates** 

