



### Synonym

DLL4,Delta4

### Source

Human DLL4 Protein, Fc Tag, premium grade(DL4-H5255) 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) NP_061947.1	Fc(Pro 100 - Lys 330) P01857
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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 [Star Ribbon Pre-stained Protein Marker](#) 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 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.

>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.

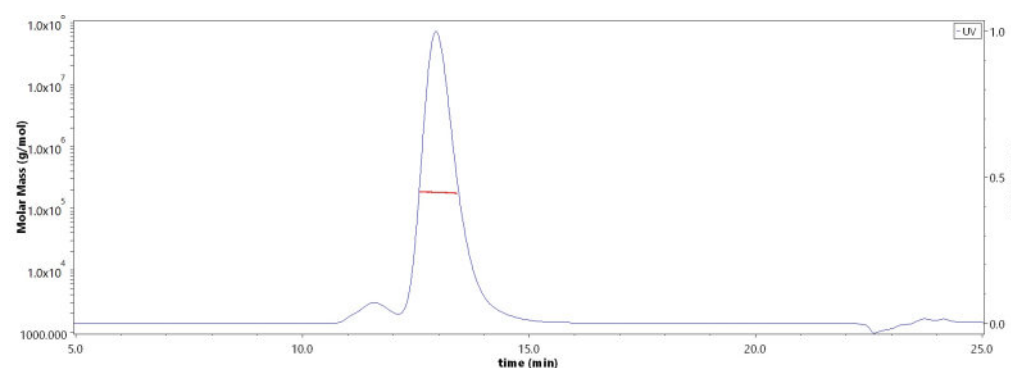
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

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

### SDS-PAGE

### SEC-MALS



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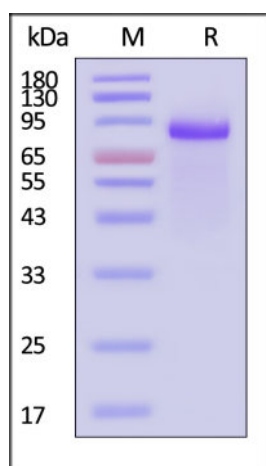


# Human DLL4 Protein, Fc Tag, premium grade

Catalog # DL4-H5255



BIOSYSTEMS  
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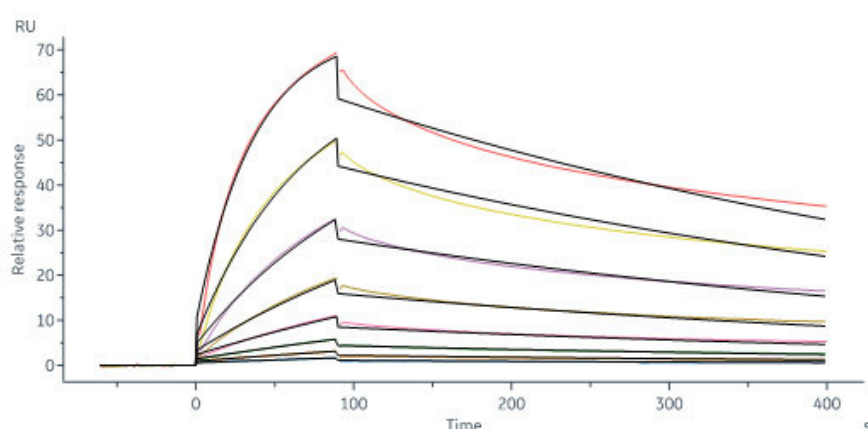


The purity of Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) is more than 90% and the molecular weight of this protein is around 160-200 kDa verified by SEC-MALS.

[Report](#)

Human DLL4 Protein, Fc Tag, 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 [Star Ribbon Pre-stained Protein Marker](#)).

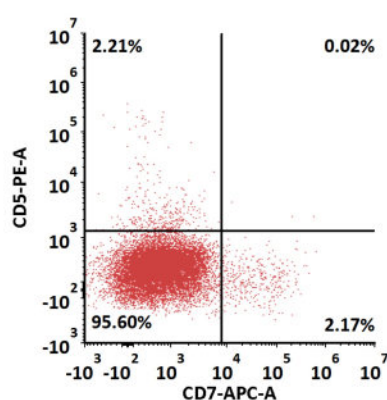
## Bioactivity-SPR



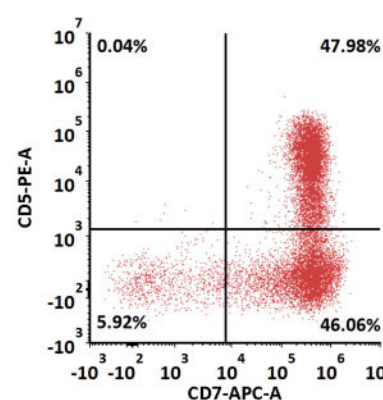
Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) captured on Protein A Chip can bind Human NOTCH1 Protein, His Tag, premium grade (Cat. No. NO1-H52H3) with an affinity constant between 1.00 nM - 150 nM as determined in a SPR assay (Biacore 8K) (QC tested).

## Application Data

CD7<sup>+</sup> CD5<sup>+</sup> T-cell progenitors differentiated from CD34<sup>+</sup> CD45<sup>+</sup> hematopoietic cells induced with Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) in a feeder-free system at 14 days



Negative Control  
(w/o Human DLL4, Fc tag)



Human DLL4 Protein, Fc Tag, premium grade  
(Cat. No. DL4-H5255)

CD34<sup>+</sup> CD45<sup>+</sup> hematopoietic cells were seeded on a Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) coating plate and differentiated for 14 days, then flow cytometry was used to detect the expression of T-cell progenitor markers, CD7 and CD5, in FSC/SSC<sub>low</sub> gate. Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) together with other factors could induce the formation of CD7<sup>+</sup> and CD7<sup>+</sup> CD5<sup>+</sup> T-cell progenitors. However, the cells cultured without Human DLL4 Protein, Fc Tag, premium grade (Cat. No. DL4-H5255) expressed neither CD5 nor CD7 (Routinely tested).

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11/13/2024



## 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 activate 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

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