Catalog # NO1-H5255



### Synonym

NOTCH1,Notch 1,hN1,TAN1

### Source

Human NOTCH1, Fc Tag(NO1-H5255) is expressed from human 293 cells (HEK293). It contains AA Ala 19 - Gln 526 (Accession # <u>P46531-1</u>). Predicted N-terminus: Ala 19

### **Molecular Characterization**

NOTCH1(Ala 19 - Gln 526) Fc(Pro 100 - Lys 330) P46531-1 P01857

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

The protein has a calculated MW of 80.0 kDa. The protein migrates as 90-100 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

## 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

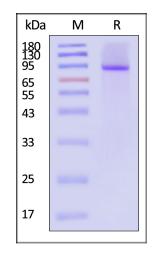
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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 NOTCH1, Fc Tag 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>).

# SEC-MALS

The purity of Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) is more than 85% and the molecular weight of this protein is around 170-210 kDa verified by SEC-MALS. <u>Report</u>



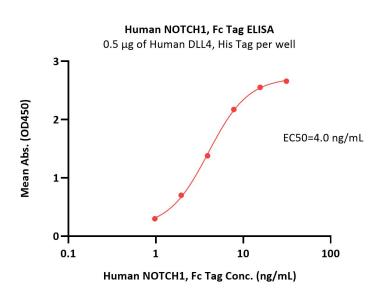
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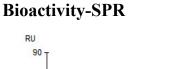
# Human NOTCH1 Protein, Fc Tag (MALS verified)

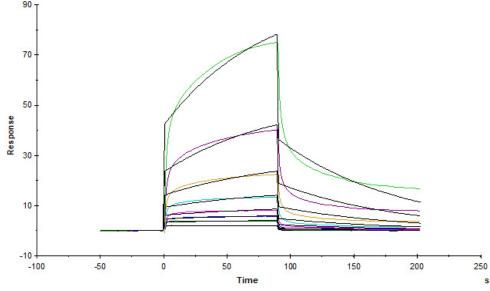
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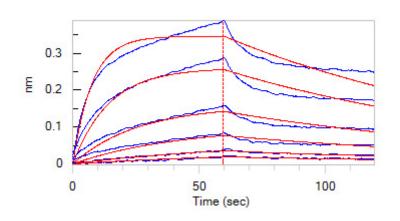
Immobilized Human DLL4, His Tag (Cat. No. DL4-H5227) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with a linear range of 1-8 ng/mL (QC tested).

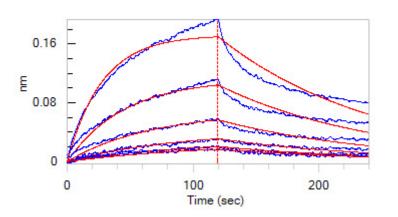




Human Jagged 1, His Tag (Cat. No. JA1-H52H9) immobilized on CM5 Chip can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with an affinity constant of 5.13  $\mu$ M as determined in a SPR assay (Biacore T200) (Routinely tested).

# **Bioactivity-BLI**





Loaded Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) on Protein A Biosensor, can bind Human DLL4, His Tag (Cat. No. DL4-H5227) with an Loaded Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) on Protein A Biosensor, can bind Human DLL1 Protein, His Tag, premium grade (Cat. No.



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affinity constant of 67.5 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

DL1-H52H8) with an affinity constant of 290 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

NOTCH1 Interacts with DNER, DTX1, DTX2 and RBPJ/RBPSUH. Also interacts with MAML1, MAML2 and MAML3 which act as transcriptional coactivators for NOTCH1. The NOTCH1 intracellular domain interacts with SNW1; the interaction involves multimerized NOTCH1 NICD and is implicated in a formation of an intermediate preactivation complex which associates with DNA-bound CBF-1/RBPJ. The activated membrane-bound form interacts with AAK1 which promotes NOTCH1 stabilization. Functions as a receptor for membrane-bound ligands Jagged-1 (JAG1), Jagged-2 (JAG2) and Delta-1 (DLL1) to regulate cell-fate determination. Involved in the maturation of both CD4+ and CD8+ cells in the thymus. Important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, functions as a receptor for neuronal DNER and is involved in the differentiation of Bergmann glia.



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