

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 # [P46531-1](#)).

Predicted N-terminus: Ala 19

Molecular Characterization

NOTCH1(Ala 19 - Gln 526) P46531-1	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 80.0 kDa. The protein migrates as 90-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

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.

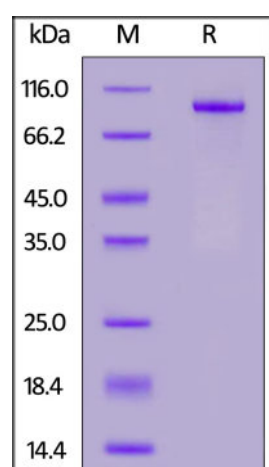
Storage

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

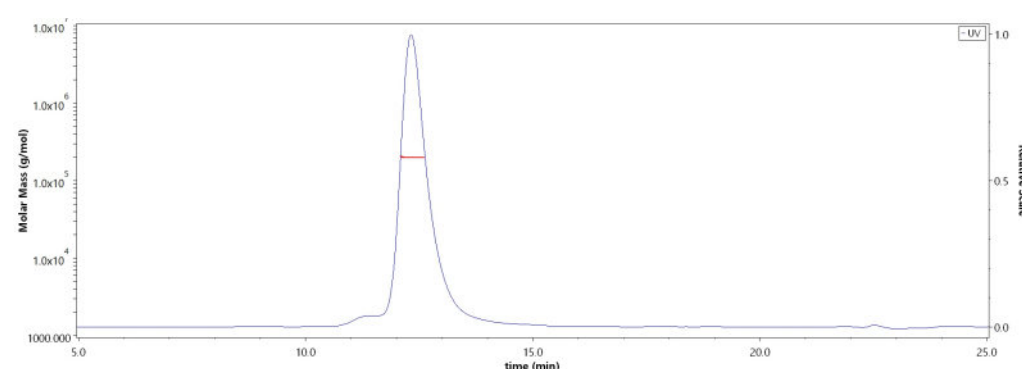
Please avoid repeated freeze-thaw cycles.

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.

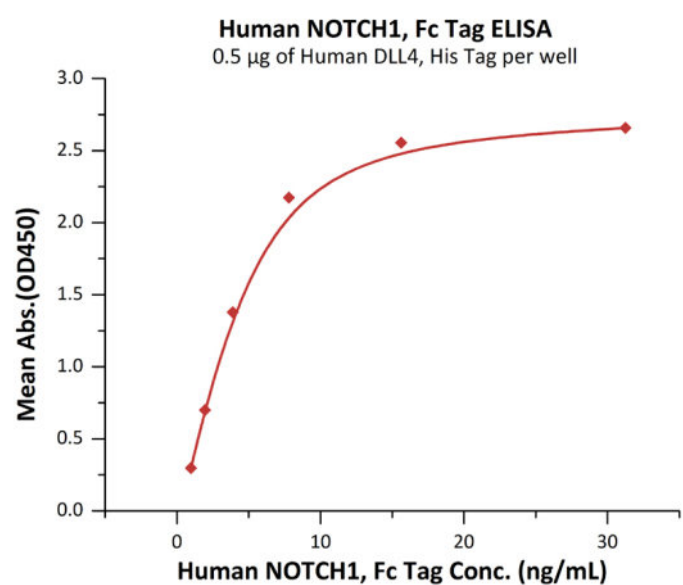
SDS-PAGE

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%.

Bioactivity-ELISA**SEC-MALS**

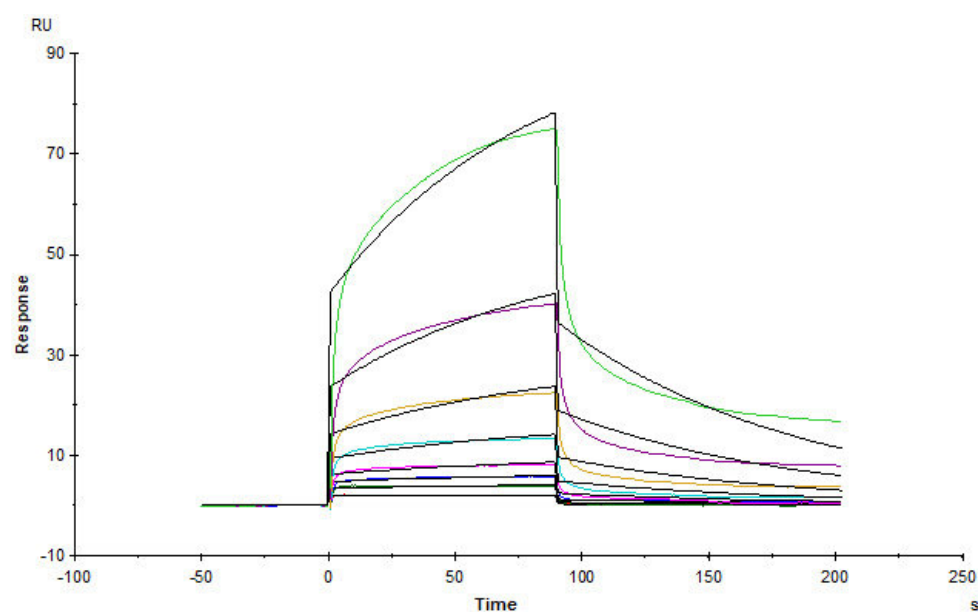
The purity of Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) is more than 85% and the molecular weight of this protein is around 170-210 kDa verified by SEC-MALS.

[Report](#)



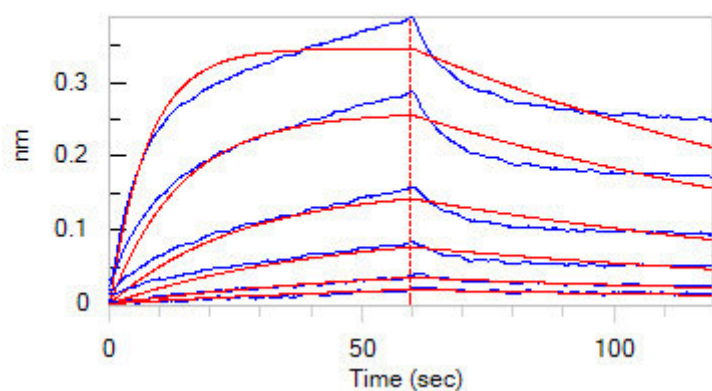
Immobilized Human DLL4, His Tag (Cat. No. DL4-H5227) at 5 µg/mL (100 µL/well) can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with a linear range of 1-8 ng/mL (QC tested).

Bioactivity-SPR

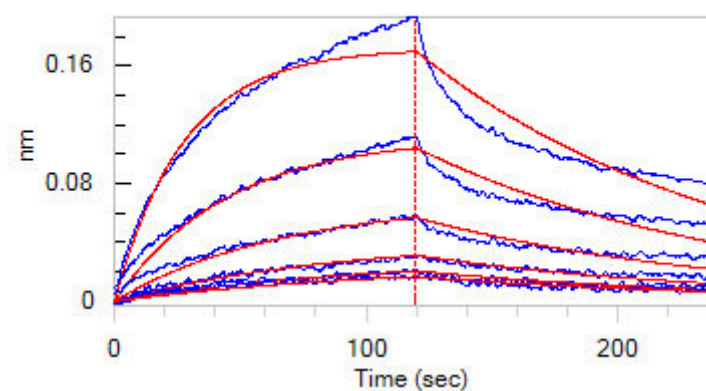


Human Jagged 1, His Tag (Cat. No. JA1-H52H9) immobilized on CM5 Chip can bind Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) with an affinity constant of 5.13 µM as determined in a SPR assay (Biacore T200) (Routinely tested).

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



Loaded Human NOTCH1, Fc Tag (Cat. No. NO1-H5255) on Protein A Biosensor, can bind Human DLL1, His Tag (Cat. No. 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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.