

Synonym

NOTCH1, Notch 1, hN1, TAN1

Source

Human NOTCH1 Protein, His Tag, premium grade (NO1-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 19 - Gln 526 (Accession # [P46531-1](#)).

Predicted N-terminus: Ala 19

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

NOTCH1(Ala 19 - Gln 526)
P46531-1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 55.4 kDa. The protein migrates as 65 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 / rFC method.

Sterility

Negative

Mycoplasma

Negative

Purity

>90% 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.

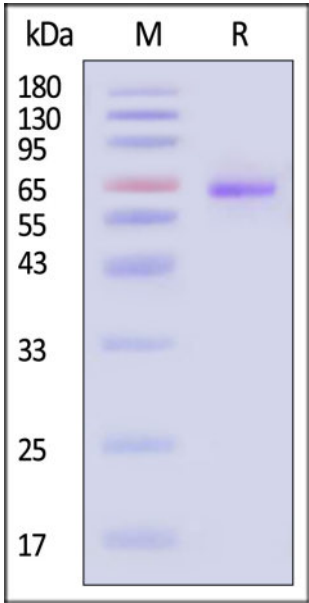
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

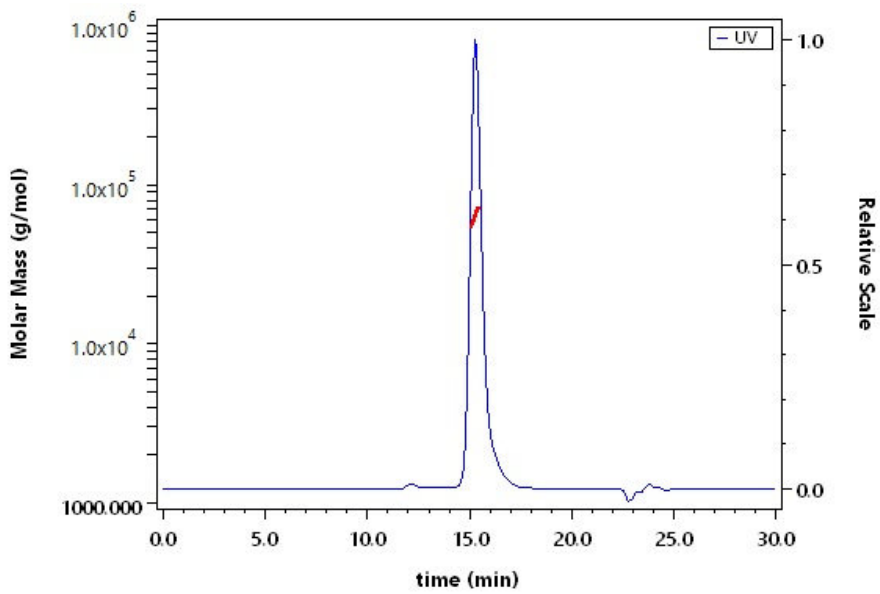
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



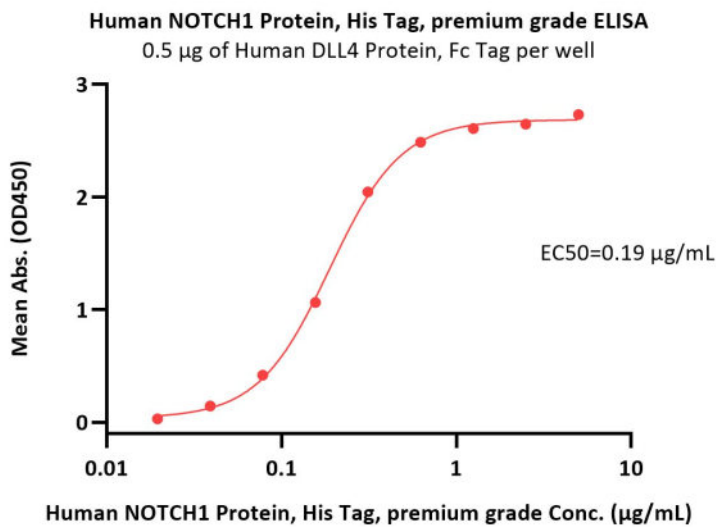
Human NOTCH1 Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS

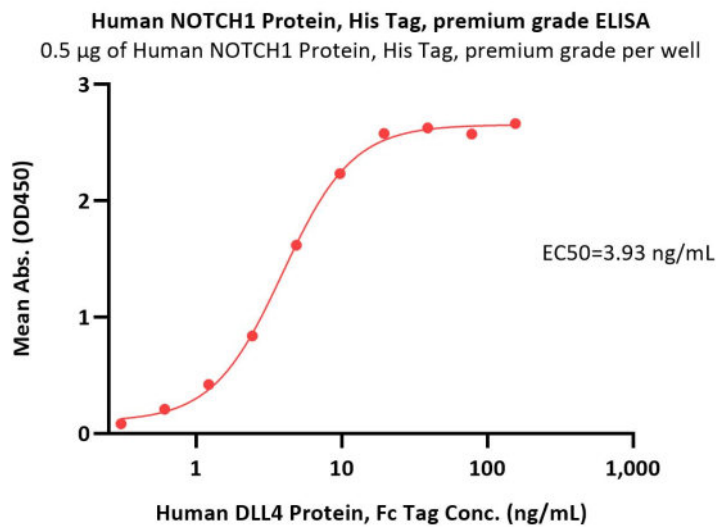


The purity of Human NOTCH1 Protein, His Tag, premium grade (Cat. No. NO1-H52H3) is more than 90% and the molecular weight of this protein is around 60-80 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Human DLL4 Protein, Fc Tag (Cat. No. DL4-H5259) at 5 µg/mL (100 µL/well) can bind Human NOTCH1 Protein, His Tag, premium grade (Cat. No. NO1-H52H3) with a linear range of 0.02-0.313 µg/mL (QC tested).



Immobilized Human NOTCH1 Protein, His Tag, premium grade (Cat. No. NO1-H52H3) at 5 µg/mL (100 µL/well) can bind Human DLL4 Protein, Fc Tag (Cat. No. DL4-H5259) with a linear range of 0.3-10 ng/mL (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 D-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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