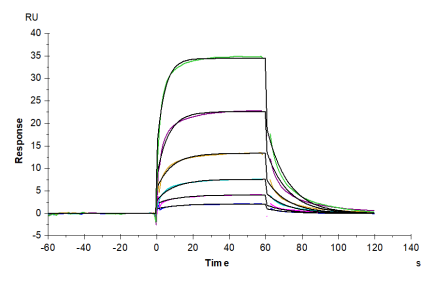
Bioactive HuPro®

NOTCH1 (Human) Recombinant Protein

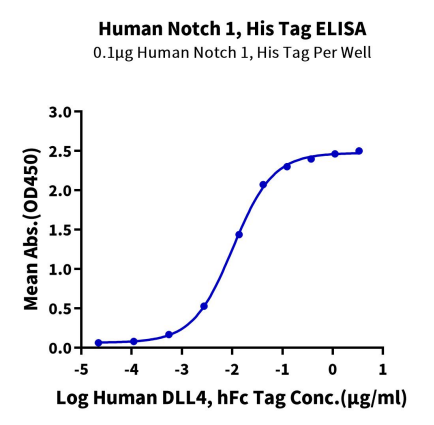
Catalog # P10216 Size 100 ug

Applications



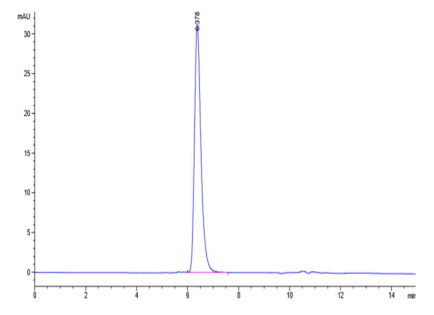
Surface Plasmon Resonance

Human DLL4, hFc Tag captured on CM5 Chip via Protein A can bind Human Notch 1, His Tag with an affinity constant of 0.48 uM as determined in SPR assay (Biacore T200).



ELISA

Immobilized Human Notch 1, His Tag at 1 ug/ml (100 ul/Well) on the plate. Dose response curve for Human DLL4, hFc Tag with the EC_{50} of 10.3 ng/ml determined by ELISA (QC Test).



SEC-HPLC

The purity of Human Notch 1 is greater than 95% as determined by SEC-HPLC.

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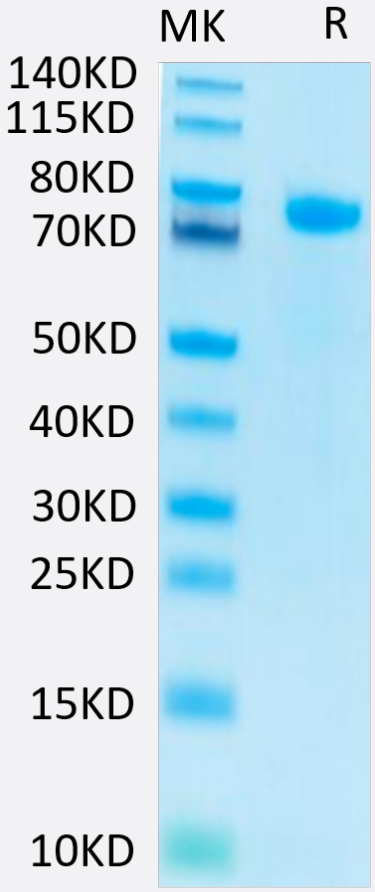

Tris-Bis PAGE

Human Notch 1 on Tris-Bis PAGE under reduced conditions. The purity is greater than 95%.

Specification

Product Description	Human NOTCH1 (P46531, Ala19-Gln526) partial recombinant protein with His-Avi tag at C-terminus expressed in HEK293 cells.
Sequence	Ala19-Gln526
Host	Human
Theoretical MW (kDa)	56.5
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE;> 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)

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Quality Control Testing	ELISA and SEC-HPLC ELISA Immobilized Human Notch 1, His Tag at 1 ug/ml (100 ul/Well) on the plate. Dose response curve for Human DLL4, hFc Tag with the EC_{50} of 10.3 ng/ml determined by ELISA (QC Test). SEC-HPLC The purity of Human Notch 1 is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human Notch 1 on Tris-Bis PAGE under reduced conditions. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SEC-HPLC SPR Tris-Bis PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from filtered solution in PBS, pH 7.4 (5% trehalose).
Storage Instruction	After reconstitution with deionized water to a final concentration more than 100 ug/ml, store at 4°C for 1 week. For long term storage, store at -80°C for 1 year. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay
- Surface Plasmon Resonance

  Human DLL4, hFc Tag captured on CM5 Chip via Protein A can bind Human Notch 1, His Tag with an affinity constant of 0.48 uM as determined in SPR assay (Biacore T200).

Gene Info — NOTCH1

Entrez GeneID	4851
Protein Accession#	P46531
Gene Name	NOTCH1
Gene Alias	TAN1, hN1
Gene Description	Notch homolog 1, translocation-associated (Drosophila)
Omim ID	109730 190198

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Gene Ontology	Hyperlink
Gene Summary	This gene encodes a member of the Notch family. Members of this Type 1 transmembrane protein family share structural characteristics including an extracellular domain consisting of multiple epidermal growth factor-like (EGF) repeats, and an intracellular domain consisting of multiple, different domain types. Notch family members play a role in a variety of developmental processes by controlling cell fate decisions. The Notch signaling network is an evolutionarily conserved intercellular signaling pathway which regulates interactions between physically adjacent cells. In Drosophilia, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signaling pathway that plays a key role in development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remain to be determined. This protein is cleaved in the trans-Golgi network, and presented on the cell surface as a heterodimer. This protein functions as a receptor for membrane bound ligands, and may play multiple roles during development. [provided by RefSeq
Other Designations	OTTHUMP00000022594|neurogenic locus notch homolog protein 1|notch1|translocation-associated notch protein TAN-1

Pathway

- Dorso-ventral axis formation
- Notch signaling pathway
- Prion diseases

Disease

- Alzheimer disease
- Birth Weight
- Diabetes Mellitus
- Genetic Predisposition to Disease
- Head and Neck Neoplasms
- Kidney Failure
- Leukemia
- Lymphoma
- Multiple Myeloma
- Neoplasm Recurrence

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- Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Precursor T-Cell Lymphoblastic Leukemia-Lymphoma
- Schizophrenia

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