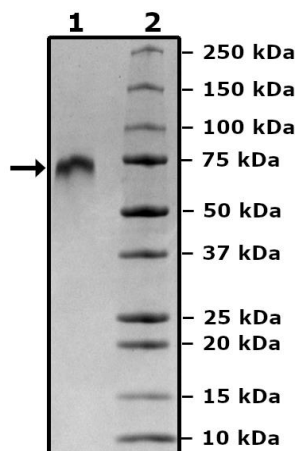


Product Information

Description:	Recombinant human Notch1, encompassing amino acids 19-526. This construct contains an C-terminal Avi-Tag™ followed by an His-tag (6xHis). This protein was affinity purified.
Background:	Notch1 is a receptor for the membrane-bound ligands Jagged-1 (JAG1), Jagged-2 (JAG2) and Delta-1 (DLL1). The Notch signaling pathway controls cell fate decisions in vertebrates and invertebrates' tissues and is involved in embryonic development, tissue homeostasis, and regulation of the immune and angiogenic systems. Notch signaling is triggered through the binding of a transmembrane ligand, present in opposing cells, to one of the four existing Notch transmembrane receptors (Notch1/Notch2/Notch3/Notch4). This results in proteolytic cleavage of the Notch receptor, releasing the constitutively active intracellular domain of the Notch receptor (NICD). NICD translocate to the nucleus and associates with the transcription factor CSL (CBF1/RBPJκ/Suppressor of Hairless/Lag-1) and coactivator Mastermind to turn on the transcription of Notch-responsive genes. Dysfunction of Notch signaling has severe consequences, including developmental pathologies or cancer (such as T cell acute lymphoblastic leukemia, T-ALL, and urothelial bladder cancer). The use of Notch inhibitors, mainly gamma secretase inhibitors, as a cancer therapy option and in the regeneration of tissues is ongoing. Further studies will allow us to have a deeper understanding of Notch signaling and will benefit future therapeutic approaches.
Species:	Human
Construct:	Notch1 (19-526-Avi-His)
Concentration:	0.50 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	57 kDa + glycans
Glycosylation:	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
Genbank Accession:	NM_017617.5
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	The protein was validated by measuring DLL4 binding to Notch1 in an ELISA assay. The Notch1 protein (BPS Bioscience #101897) was coated onto a 96-well plate overnight at 4°C (50 µl/well at a concentration of 4 µg/ml in PBS). The plate was washed 3 times with Immuno Buffer 1 (BPS Bioscience #79311) and blocked using 100 µl of Blocking Buffer 2 (BPS Bioscience #79728) for 1 hour at room temperature. After removing the blocking buffer, 50 µl/well of purified DLL4 Fc Biotin (BPS Bioscience #101904), serially diluted in Blocking Buffer 2, was added for 1 hour at room temperature. After washing the plate was incubated with Streptavidin-HRP (BPS Bioscience #79742). This was followed by washing and incubation with Colorimetric HRP substrate. The reaction was stopped, and absorbance was read at λ=450 nm. The Blank value was subtracted from all values.
Applications:	Useful for the study of the binding of Notch1 in ELISA and in cellular assays.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



Notch1: DLL4-Biotin Binding Assay

