

Datasheet for ABIN3094219

Notch1 Protein (AA 1757-2555) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	Notch1 (NOTCH1)
Protein Characteristics:	AA 1757-2555
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Notch1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence: SRKRRRQHGQ LWFPEGFKVS EASKKKRREP LGEDSVGLKP LKNASDGALM DDNQNEWGDE
DLETKKFRFE EPVVLPLDD QTDHRQWTQQ HLDAADLRMS AMAPTPPQGE VDADCMDVNV
RGPDGFTPLM IASCSGGGLE TGNSEEEEDA PAVISDFIQ GASLHNQTD TGETALHLAA
RYSRSDAAKR LLEASADANI QDNMGRTPH AAVSADAQGV FQILIRN RAT DLDARMHDGT
TPLILAA RLA VEGMLEDLIN SHADVNAVDD LGKSALHWAA AVNNVDAAVV LLKNGANKDM
QNNREETPLF LAAREGSYET AKVLLDHFAN RDITDHMDRL PRDIAQERMH HDIVRLLDEY
NLVRSPLHG APLGGTPTLS PPLCSPNGYL GSLKPGVQ GK KVRKPSSKGL ACGSKEAKDL
KARRKKSQDG KGCLLDSSGM LSPVDSLESP HGYLSDVASP PLLPSPFQ QS PSVPLNHLPG
MPDTHLGIGH LNVAAKPEMA ALGGGGRLAF ETGPPRLSHL PVASGTSTVL GSSSGGALNF
TVGGSTSLNG QCEWLSRLQS GMVPNQYNPL RGSVAPG PLS TQAPSLQHGM VGPLHSSLAA
SALSQMMSYQ GLPSTRLATQ PHLVQTQQVQ PQNLQMQQN LQPANIQQQ SLQPPPPPPQ
PHLGVSSAAS GHLGRSFLSG EPSQADVQPL GPSSSLAVHTI LPQESPALPT SLPSSSLVPPV

TAAQFLTPPS QHSYSSPVDN TPSHQLQVPE HPFLTPSPES PDQWSSSSPH SNVSDWSEGV
SSPPTSMQSQ IARIPEAFK

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human NOTCH1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Product Details

Grade: Crystallography grade

Target Details

Target: Notch1 (NOTCH1)

Alternative Name: NOTCH1 ([NOTCH1 Products](#))

Background: Functions as a receptor for membrane-bound ligands Jagged1, Jagged2 and Delta1 to regulate cell-fate determination. Upon ligand activation through the released notch intracellular domain (NICD) it forms a transcriptional activator complex with RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs. Involved in angiogenesis, negatively regulates endothelial cell proliferation and migration and angiogenic sprouting. 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. Represses neuronal and myogenic differentiation. May play an essential role in postimplantation development, probably in some aspect of cell specification and/or differentiation. May be involved in mesoderm development, somite formation and neurogenesis. May enhance HIF1A function by sequestering HIF1AN away from HIF1A. Required for the THBS4 function in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury. Involved in determination of left/right symmetry by modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO). {ECO:0000269|PubMed:20616313}.

Molecular Weight: 86.4 kDa Including tag.

UniProt: [P46531](#)

Pathways: [Notch Signaling](#), [Stem Cell Maintenance](#), [Regulation of Muscle Cell Differentiation](#), [Tube Formation](#), [Skeletal Muscle Fiber Development](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you

Application Details

receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process