

Datasheet for ABIN3114732

**Patched 1 Protein (PTCH1) (AA 1-1447) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	Patched 1 (PTCH1)
Protein Characteristics:	AA 1-1447
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Patched 1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Sequence:	MASAGNAAEP QDRGGGGSGC IGAPGRPAGG GRRRRTGGLR RAAAPDRDYL HRPSYCDAAF ALEQISKGKA TGRKAPLWLR AKFQRLFLKL GCYIQKNCCK FLVVGLLIFG AFAVGLKAAN LETNVEELWV EVGGRVSREL NYTRQKIGEE AMFNPQLMIQ TPKEEGANVL TTEALLQHLD SALQASRVHV YMYNRQWKLE HLCYKSGELI TETGYMDQII EYLYPCLIIT PLDCFWEKAK LQSGTAYLLG KPPLRWTFND PLEFLEELKK INYQVDSWEE MLNKAEVGHG YMDRPLNPA DPDCPATAPN KNSTKPLDMA LVLNGGCHGL SRKYMHWQEE LIVGGTVKNS TGKLVSAHAL QTMFQLMTPK QMYEHFKGYE YVSHINWNE KAAAILEAWQ RYVEVVHQS VAQNSTQKVL SFTTTTLLDDI LKSFSDVSVI RVASGYLLML AYACLTMLRW DCSKSQGAVG LAGVLLVALS VAAGLGLCSL IGISFNAATT QVLPFLALGV GVDDVFLLAH AFSETGQNK R IPFEDRTGEC LKRTGASVAL TSISNVTAF MAALIPIPAL RAFSLQAAVV VVFNFAMVLL IFPAILSMDL YRREDRRLDI FCCFTSPCVS RVIQVEPQAY TDTHDNTRYSPPPYSSHSF AHETQITMQS TVQLRTEYDP HTHVYYTTAE PRSEISVQPV TVTQDTLSCQ SPESTSSTRD LLSQFSDSSL
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HCLEPPCTKW TLSSFAEKHY APFLLKPKAK VVIFLFLGL LGVSLYGTTT VRDGLDLTDI  
VPRETREYDF IAAQFKYFSF YNMYIVTQKA DYPNIQHLLY DLHRSFSNVK YVMLEENKQL  
PKMWLHYFRD WLQGLQDAFD SDWETGKIMP NNYKNGSDDG VLAYKLLVQT GSRDKPIDIS  
QLTKQRLVDA DGIINPSAFY IYLTAWVSND PVAYAASQAN IRPHRPEWVH DKADYMPETR  
LRIPAAEPIE YAQFPFYLNG LRDTSDFVEA IEKVRTICSN YTSGLGLSSYP NGYPFLFWEQ  
YIGLRHWLLL FISVVLACTF LVCAVFLNLP WTAGIIVMVL ALMTVELFGM MGLIGIKLSA  
VPVVILIASV GIGVEFTVHV ALAFLTAIGD KNRRRAVLAL HMFAPVLDGA VSTLLGVMLL  
AGSEFDFIVR YFFAVLAILT ILGVNLGLVL LPVLLSFFGP YPEVSPANGL NRLPTPSPEP  
PPSVVRFAMP PGHTHSGSDS SDSEYSSQTT VSGLSEELRH YEAQQGAGGP AHQVIVEATE  
NPVFAHSTVW HPESRHHPPS NPRQQPHLDS GSLPPGRQGG QPRRDPPREG LWPPPYRPRR  
DAFEISTEGH SGPSNRARWG PRGARSHNPR NPASTAMGSS VPGYCQPITT VTASASVTVA  
VHPPVPVPGG RNPRGGLCPG YPETDHGLFE DPHVPFHVRC ERRDSKVEVI ELQDVECEER  
PRGSSSN

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for

## Product Details

protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):  1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	Patched 1 (PTCH1)
Alternative Name:	PTCH1 ( <a href="#">PTCH1 Products</a> )
Background:	Protein patched homolog 1 (PTC) (PTC1),FUNCTION: Acts as a receptor for sonic hedgehog (SHH), indian hedgehog (IHH) and desert hedgehog (DHH). Associates with the smoothened protein (SMO) to transduce the hedgehog's proteins signal. Seems to have a tumor suppressor function, as inactivation of this protein is probably a necessary, if not sufficient step for tumorigenesis. {ECO:0000269 PubMed:21537345}.
Molecular Weight:	160.5 kDa
UniProt:	<a href="#">Q13635</a>

## Target Details

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Pathways: [Hedgehog Signaling](#), [Carbohydrate Homeostasis](#), [Tube Formation](#)

## Application Details

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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: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



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