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Datasheet for ABIN3119555

## Patched 2 Protein (PTCH2) (AA 1-1203) (Strep Tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	Patched 2 (PTCH2)
Protein Characteristics:	AA 1-1203
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This Patched 2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence: MTRSPPLREL PPSYTPPART AAPQILAGSL KAPLWLRAYF QGLLFSLGCG IQRHCGKVLF  
 LGLLAFGALA LGLRMAIET NLEQLWVEVG SRVSQELHYT KEKLGEEAAY TSQMLIQTAR  
 QEGENILTPE ALGLHLQAAL TASKVQVSLY GKSWDLNKIC YKSGVPLIEN GMIERMIEKL  
 FPCVILTPLD CFWEGAKLQG GSAYLPGRPD IQWTNLDPEQ LLEELGPFAS LEGFRELLDK  
 AQVGQAYVGR PCLHPDDLHC PPSAPNHHSR QAPNVAHEL S GGCHGF SHKF MHWQEELLLG  
 GMARDPQGEL LRAEALQSTF LLMSPRQLYE HFRGDYQTHD IGWSEEQAST VLQAWQRRFV  
 QLAQEALPEN ASQQIHAFSS TTLDDILHAF SEVSAARVVG GYLLMLAYAC VTMLRWDCAQ  
 SQGSVGLAGV LLVALAVASG LGLCALLGIT FNAATTQVLP FLALGIGVDD VFLLAHAFTE  
 ALPGTPLQER MGECLQRTGT SVLTSINNM AAFLMAALVP IPALRAFSLQ AAIVVGCTFV  
 AVMLVFPAIL SLDLRRRHQC RLDVLCCFSS PCSAQVIQIL PQELGDGTVP VGIAHLTATV  
 QAFTHCEASS QHVVTILPPQ AHLVPPSPDP LGSELFSPGG STRDLLGQEE ETRQKAACKS  
 LPCARWNLAH FARYQFAPLL LQSHAKAIVL VLFGALLGLS LYGATLVQDG LALTDVVPRG

TKEHAFLSAQ LRYFSLYEVA LVTQGGFDYA HSQRALFDLH QRFSSLKAVL PPPATQAPRT  
WLHYYRNWLQ GIQAAFDQDW ASGRITRHSY RNGSEDGALA YKLLIQTGDA QEPLDFSQLT  
TRKLVDTREGL IPPELFYMGL TVWVSSDPLG LAASQANFYP PPEWLHDKY DTTGENLRIP  
PAQPLEFAQF PFLLRGLQKT ADFVEAIEGA RAACAEAGQA GVHAYPSGSP FLFWEQYLGL  
RRCFLLAVCI LLVCTFLVCA LLLLNPWTAG LIVLVLAMMT VELFGIMGFL GIKLSAIPVV  
ILVASVGIGV EFTVHVALGF LTTQGSRNLR AAHALEHTFA PVTDGAISTL LGLLMLAGSH  
FDFIVRYFFA ALTVLTLGL LHGLVLLPVL LSILGPPPEV IQMYKESPEI LSPPAPQGGG  
LRWGASSSLP QSFARVTTSM TVAIHPPPLP GAYIHPAPDE PPWSPAATSS GNLSSRGP GP ATG

**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.**

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### 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 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!

## Product Details

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### 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.

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### 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.

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### Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

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### Grade:

Crystallography grade

## Target Details

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### Target:

Patched 2 (PTCH2)

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### Alternative Name:

PTCH2 ([PTCH2 Products](#))

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### Background:

Protein patched homolog 2 (PTC2),FUNCTION: Plays a role in the control of cellular growth (PubMed:18285427). May have a role in epidermal development. May act as a receptor for Sonic hedgehog (SHH). {ECO:0000269|PubMed:18285427}.

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### Molecular Weight:

130.5 kDa

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### UniProt:

[Q9Y6C5](#)

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### Pathways:

[Hedgehog Signaling](#)

## 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.

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### Comment:

ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

## Application Details

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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!

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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)

## Images

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