

Datasheet for ABIN3113297

**5HT1B Receptor Protein (AA 1-390) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	5HT1B Receptor (HTR1B)
Protein Characteristics:	AA 1-390
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This 5HT1B Receptor protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

## Product Details

Sequence: MEEPGAQCAP PPPAGSETWV PQANLSSAPS QNCSAKDIY QDSISLPWKV LLVMLLALIT  
LATTLSNAFV IATVYRTRKL HTPANYLIAS LAVTDLLVSI LVMPISTMYT VTGRWTLGQV  
VCDFWLSSDI TCCTASILHL CVIALDRYWA ITDAVEYSAK RTPKRAAVMI ALVWVFSISI  
SLPPFFWRQA KAEEEVSECV VNTDHILYTV YSTVGAFYFP TLLIALLYGR IYVEARSRL  
KQTPNRTGKR LTRAQLITDS PGSTSSVTSI NSRVPDVPSE SGSPVYVNQV KVRVSDALLE  
KKKLMAARER KATKTLGIL GAFIVCWLPF FIISLVMPIC KDACWFHLAI FDFFTWLGYL  
NSLINPIYT MSNEDFKQAF HKLIRFKCTS

**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:
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- 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!

### 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.

## Product Details

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:	5HT1B Receptor (HTR1B)
Alternative Name:	HTR1B ( <a href="#">HTR1B Products</a> )
Background:	<p>5-hydroxytryptamine receptor 1B (5-HT-1B) (5-HT1B) (S12) (Serotonin 1D beta receptor) (5-HT-1D-beta) (Serotonin receptor 1B),FUNCTION: G-protein coupled receptor for 5-hydroxytryptamine (serotonin). Also functions as a receptor for ergot alkaloid derivatives, various anxiolytic and antidepressant drugs and other psychoactive substances, such as lysergic acid diethylamide (LSD). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors, such as adenylate cyclase. Signaling inhibits adenylate cyclase activity. Arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways. Regulates the release of 5-hydroxytryptamine, dopamine and acetylcholine in the brain, and thereby affects neural activity, nociceptive processing, pain perception, mood and behavior. Besides, plays a role in vasoconstriction of cerebral arteries.</p> <p>{ECO:0000269 PubMed:10452531, ECO:0000269 PubMed:1315531, ECO:0000269 PubMed:1328844, ECO:0000269 PubMed:1348246, ECO:0000269 PubMed:1351684, ECO:0000269 PubMed:1559993, ECO:0000269 PubMed:1565658, ECO:0000269 PubMed:15853772, ECO:0000269 PubMed:1610347, ECO:0000269 PubMed:23519210, ECO:0000269 PubMed:23519215, ECO:0000269 PubMed:8218242}.</p>
Molecular Weight:	43.6 kDa
UniProt:	<a href="#">P28222</a>
Pathways:	<a href="#">JAK-STAT Signaling</a> , <a href="#">cAMP Metabolic Process</a> , <a href="#">Regulation of G-Protein Coupled Receptor Protein Signaling</a> , <a href="#">Feeding Behaviour</a> , <a href="#">S100 Proteins</a>

## 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
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Application Details

	guarantee though.
Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

Handling

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