

Datasheet for ABIN3080779

**GLYR1 Protein (AA 1-553) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	GLYR1
Protein Characteristics:	AA 1-553
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GLYR1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence: MAAVSLRLGD LVWGKLG RYP PWP GKIVNPP KDLKKPRGKK CFFVKFFGTE DHAWIKVEQL  
KPYHAHKEEM IKINKGKRFQ QAVDAVEEFL RRAKGKDQTS SHNSSDDKNR RNSSEERSRP  
NSGDEKRKLS LSEGKVKKNM GEGKKRVSSG SSERGSKSPL KRAQEQLSPRK RGRPPKDEKD  
LTIPESTVK GMMAGPMAAF KWQPTASEPV KDADPHFHFF LLSQTEKPAV CYQAITKKLK  
ICEEETGSTS IQAADSTAVN GSITPTDKKI GFLGLGLMGS GIVSNLLKMG HTVTVWNRTA  
EKCDLFIQEG ARLGRTPAEV VSTCDITFAC VSDPKAAKDL VLGP SGVLQG IRPGKCYVDM  
STVDADTVTE LAQVIVSRGG RFLEAPVSGN QQLSNDGMLV ILAAGDRGLY EDCSSCFQAM  
GKTSFFLGEV GNAAKMMLIV NMVQGSFMAI AEGLTLAQV TGQSQQTLTD ILNQQLASI  
FLDQKCQNIL QGNFKPDFYL KYIQKDLRLA IALGDAVNHP TPMAAAANEV YKRAKALDQS  
DNDMSAVYRA YIH

**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!

#### 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.

Product Details

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:	GLYR1
Alternative Name:	GLYR1 ( <a href="#">GLYR1 Products</a> )
Background:	<p>Cytokine-like nuclear factor N-PAC (NPAC) (3-hydroxyisobutyrate dehydrogenase-like protein) (Glyoxylate reductase 1 homolog) (Nuclear protein NP60) (Nuclear protein of 60 kDa) (Nucleosome-destabilizing factor) (hNDF) (Putative oxidoreductase GLYR1),FUNCTION: Cytokine-like nuclear factor with chromatin gene reader activity involved in chromatin modification and regulation of gene expression (PubMed:23260659, PubMed:30970244). Acts as a nucleosome-destabilizing factor that is recruited to genes during transcriptional activation (PubMed:30970244, PubMed:29759984). Recognizes and binds histone H3 without a preference for specific epigenetic markers and also binds DNA (PubMed:20850016, PubMed:30970244). Interacts with KDM1B and promotes its histone demethylase activity by facilitating the capture of H3 tails, they form a multifunctional enzyme complex that modifies transcribed chromatin and facilitates Pol II transcription through nucleosomes (PubMed:23260659, PubMed:30970244, PubMed:29759984). Stimulates the acetylation of 'Lys-56' of nucleosomal histone H3 (H3K56ac) by EP300 (PubMed:29759984). With GATA4, co-binds a defined set of heart development genes and coregulates their expression during cardiomyocyte differentiation (PubMed:35182466). Regulates p38 MAP kinase activity by mediating stress activation of MAPK14/p38alpha and specifically regulating MAPK14 signaling (PubMed:16352664). Indirectly promotes phosphorylation of MAPK14 and activation of ATF2 (PubMed:16352664). The phosphorylation of MAPK14 requires upstream activity of MAP2K4 and MAP2K6 (PubMed:16352664). {ECO:0000269 PubMed:16352664, ECO:0000269 PubMed:20850016, ECO:0000269 PubMed:23260659, ECO:0000269 PubMed:29759984, ECO:0000269 PubMed:30970244, ECO:0000269 PubMed:35182466}.</p>
Molecular Weight:	60.5 kDa

## Target Details

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UniProt: [Q49A26](#)

## 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.

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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)



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