

Datasheet for ABIN3092961

HEY1 Protein (AA 1-304) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	HEY1
Protein Characteristics:	AA 1-304
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HEY1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	ALICE®
Sequence:	<p>MKRAHPEYSS SDSELDETIE VEKESADENG NLSSALGSMS PTTSSQILAR KRRRGIIIEKR RRDRINNSLS ELRRLVPSAF EKQGSAKLEK AEILQMTVDH LKMLHTAGGK GYFDAHALAM DYRSLGFREC LAEVARYLSI IEGLDASDPL RVRLVSHLNN YASQREAASG AHAGLGHIPW GTVFGHHPHI AHPLLLPQNG HGNAGTTASP TEPHHQGR LG SAHPEAPALR APPSGSLGPV LPVVT SASKL SPPLLSSVAS LSAFPFSFGS FHLLSPNALS PSAPTQAANL GKPYPWPWTE IGAF</p> <p>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.</p>

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> Made in Germany - from design to production - by highly experienced protein experts.
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Product Details

- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	HEY1
Alternative Name:	HEY1 (HEY1 Products)

Target Details

Background:	Hairy/enhancer-of-split related with YRPW motif protein 1 (Cardiovascular helix-loop-helix factor 2) (CHF-2) (Class B basic helix-loop-helix protein 31) (bHLHb31) (HES-related repressor protein 1) (Hairy and enhancer of split-related protein 1) (HESR-1) (Hairy-related transcription factor 1) (HRT-1) (hHRT1),FUNCTION: Transcriptional repressor which binds preferentially to the canonical E box sequence 5'-CACGTG-3' (PubMed:11095750). Downstream effector of Notch signaling required for cardiovascular development. Specifically required for the Notch-induced endocardial epithelial to mesenchymal transition, which is itself critical for cardiac valve and septum development. May be required in conjunction with HEY2 to specify arterial cell fate or identity. Promotes maintenance of neuronal precursor cells and glial versus neuronal fate specification. Represses transcription by the cardiac transcriptional activators GATA4 and GATA6 and by the neuronal bHLH factors ASCL1/MASH1 and NEUROD4/MATH3 (PubMed:15485867). Involved in the regulation of liver cancer cells self-renewal (PubMed:25985737). {ECO:0000250 UniProtKB:Q9WV93, ECO:0000269 PubMed:11095750, ECO:0000269 PubMed:15485867, ECO:0000269 PubMed:25985737}.
Molecular Weight:	32.6 kDa
UniProt:	Q9Y5J3
Pathways:	Tube Formation

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:	<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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months