

Datasheet for ABIN3081205
HA01 Protein (AA 1-370) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	HA01
Protein Characteristics:	AA 1-370
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HA01 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MLPRLICIND YEQHAKSVLP KSIYDYRSG ANDEETLADN IAAF SRWKLY PRMLRNVAET
DLSTSVLGQR VSMPICVGAT AMQRMAHVDG ELATVRACQS LGTGMMMLSSW ATSSIEEVAE
AGPEALRWLQ LYIYKDREVT KKLVRQAEKM GYKAIFVTVD TPYLG NRLLDD VRNRFKLPPQ
LRMKNFETST LSFSPENFG DDSGLAAYVA K AIDPSISWE DIKWLRRLTS LPIVAKGILR
GDDAREAVKH GLNGILVSNH GARQLDGVPA TIDVLPEIVE AVEGKVEVFL DGGVRKGTDV
LKALALGAKA VVFG RPIVWG LAFQGEKGVQ DVLEILKEEF R LAMALSGCQ NVKVIDKTLV
RKNPLAVSKI

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.

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®).
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Purity:	> 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Target Details

Target:	HA01
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Alternative Name:	HA01 (HA01 Products)
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Background:	2-Hydroxyacid oxidase 1 (HAOX1) (EC 1.1.3.15) (Glycolate oxidase) (GO) (GOX) (Glyoxylate
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Target Details

oxidase) (EC 1.2.3.5),FUNCTION: Broad substrate specificity (S)-2-hydroxy-acid oxidase that preferentially oxidizes glycolate (PubMed:10777549, PubMed:17669354, PubMed:18215067, PubMed:10978532). The glyoxylate produced by the oxidation of glycolate can then be utilized by alanine-glyoxylate aminotransferase for the peroxisomal synthesis of glycine, this pathway appears to be an important step for the detoxification of glyoxylate which, if allowed to accumulate, may be metabolized to oxalate with formation of kidney stones (PubMed:10978532, PubMed:17669354). Can also catalyze the oxidation of glyoxylate, and long chain hydroxyacids such as 2-hydroxyhexadecanoate and 2-hydroxyoctanoate, albeit with much lower catalytic efficiency (PubMed:10777549, PubMed:17669354, PubMed:18215067). Active in vitro with the artificial electron acceptor 2,6-dichlorophenolindophenol (DCIP), but O₂ is believed to be the physiological electron acceptor, leading to the production of H₂O₂ (PubMed:10777549, PubMed:17669354, PubMed:18215067, PubMed:10978532). Is not active on L-lactate and 2-hydroxybutanoate (PubMed:10777549). {ECO:0000269|PubMed:10777549, ECO:0000269|PubMed:10978532, ECO:0000269|PubMed:17669354, ECO:0000269|PubMed:18215067, ECO:0000303|PubMed:10978532, ECO:0000303|PubMed:17669354}.

Molecular Weight: 40.9 kDa

UniProt: [Q9UJM8](#)

Pathways: [Monocarboxylic Acid Catabolic Process](#)

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: 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!

Application Details

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)