

Datasheet for ABIN3092884

Hairless Protein (HR) (AA 1-1189) (Strep Tag)



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Overview

|                               |   |
|-------------------------------|---|
| Quantity:                     | 1 mg  |
| Target:                       | Hairless (HR)                                     |
| Protein Characteristics:      | AA 1-1189   |
| Origin:                       | Human   |
| Source:                       | Tobacco (Nicotiana tabacum)                       |
| Protein Type:                 | Recombinant                                       |
| Purification tag / Conjugate: | This Hairless protein is labelled with Strep Tag. |
| Application:                  | ELISA, Western Blotting (WB), SDS-PAGE (SDS)      |

Product Details

|           |   |
|-----------|---|
| Sequence: | MESTPSFLKG TPTWEKTAPE NGIVRQEPGS PPRDGLHHGP LCLGEPAPFW RGVLSTPDSW<br>LPPGFPQGPK DMLPLVEGEG PQNGERKVNW LGSKEGLRWK EAMLTHPLAF CGPACPPRCG<br>PLMPEHSGGH LKSDPVAFRP WHCPFLLET K ILERAPFWVP TCLPPYLVS G LPPEHPCDWP<br>LTPHPWVYSG GQPKVPSAFS LGSKGFYYKD PSIPRLAKEP LAAAEPLFG LNSGGHLQRA<br>GEAERPSLHQ RDGEMGAGRQ QNPCPLFLGQ PDTVPWTSWP ACPPLVHTL GNVWAGPGDG<br>NLGYQLGPPA TPRCPSPEPP VTQRGCCSSY PPTKGGGLGP CGKCEGLEG GASGASEPSE<br>EVNKASGPRA CPPSHHTKLK KTWLTRHSEQ FECPRGCPEV EERPVARLRA LKRAGSPEVQ<br>GAMGSPAPKR PPDPFPGTAE QGAGGWQEV R DTSIGNKDVD SGQHDEQKGP QDGQASLQDP<br>GLQDIPCLAL PAKLAQCQSC AQAAGEGGGH ACHSQQVRRS PLGGELQQUEE DTATNSSEE<br>GPGSGPDSRL STGLAKHLLS GLGDRLCRLL RREREALAWA QREGQGPAVT EDSPGIPRC C<br>SRCHHGLFNT HWRCPRCSHR LCVACGRVAG TGRAREKAGF QEQSAEECTQ EAGHAACSLM<br>LTQFVSSQAL AELSTAMHQV WVKFDIRGHC PCQADARVWA PGDAGQQKES TQKTPPTQPQ |
|-----------|---|

SCNGDTHRTK SIKEETPDSA ETPAEDRAGR GPLPCPSLCE LLASTAVKLC LGHERIHMAF  
APVTPALPSD DRITNILDSI IAQVVERKIQ EKALGPGLRA GPGLRKGLGL PLSPVRPRLP  
PPGALLWLQE PQPCPRRGFH LFQEHWRQGG PVLVSGIQR T LQGNLWGTEA LGALGGQVQA  
LSPLGPPQPS SLGSTTFWEG FSWPELRPKS DEGSVLLLHR ALGDEDTSRV ENLAASLPLP  
EYCALHGKLN LASYLPPGLA LRPLEPQLWA AYGVSPPHRGH LGTKNLCVEV ADLVSILVHA  
DTPLPAWHRA QKDFLSGLDG EGLWSPGSQV STVWHVFRAQ DAQRIRRLQ MVCPAGAGAL  
EPGAPGSCYL DAGLRRRLRE EWGVSCWTLL QAPGEAVLVP AGAPHQVQGL VSTVSVTQHF  
LSPETSALSA QLCHQGPSLP PDCHLLYAQM DWAVFQAVKV AVGTLQEAK

**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

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.

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.

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:

Hairless (HR)

Alternative Name:

Hairless ([HR Products](#))

Background:

Lysine-specific demethylase hairless (EC 1.14.11.65) ([histone H3]-dimethyl-L-lysine(9) demethylase hairless),FUNCTION: Histone demethylase that specifically demethylates both mono- and dimethylated 'Lys-9' of histone H3. May act as a transcription regulator controlling hair biology (via targeting of collagens), neural activity, and cell cycle.  
{ECO:0000269|PubMed:24334705}.

Molecular Weight:

127.5 kDa

UniProt:

[O43593](#)

## 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.

## Application Details

|               |  |
|---------------|--|
| 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)   |

## Images



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