

Datasheet for ABIN3092927

## HDAC9 Protein (AA 1-1011) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	HDAC9
Protein Characteristics:	AA 1-1011
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HDAC9 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MHSMISSVDV KSEVPVGLEP ISPLDLRTDL RMMMPVVDPV VREKQLQQEL LLIQQQQIQ  KQLLIAEFQK QHENLTRQH AQLQEHKEL LAIKQQQELL EKEQKLEQQR QEQUEVERHRR  EQQLPPLRGK DRGRERAVAS TEVKQKLQEF LLSKSATKDT PTNGKNHSVS RHPKLWYTAA  HHTSLDQSSP PLSGTSPSYK YTLPGAQDAK DDFPLRKAS EPNLKVRSRL KQKVAERRSS  PLLRKDGNN VTSFKKRMFE VTESSVSSSS PGSGPSSPNN GPTGSVTENE TSVLPPTPHA  EQMVSQQRIL IHEDSMNLLS LYTSPLPNI TLGLPAVPSQ LNASNSLKEK QKCETQTLRQ  GVPLPGQYGG SIPASSSHPH VTLEGKPPNS SHQALLQHLL LKEQMRQKQL LVAGGVPLHP  QSPLATKERI SPGIRGTHKL PRHRPLNRTQ SAPLPQSTLA QLVIQQQHQQ FLEKQKQYQQ  QIHMNKLLSK SIEQLKQPGS HLEEAEELQ GDQAMQEDRA PSSGNSTRSD SSACVDDTLG  QVGAVKVKEE PVDSDEDAQI QEMESGEQAA FMQQPFEPT HTRALSVRQA PLAAVGMDGL  EKHRLVSRTH SSPAASVLPH PAMDRPLQPG SATGAIYDPL MLKHQCVCGN STTHPEHAGR</p>

IQSIWSRLQE TGLLNKCERI QGRKASLEEI QLVHSEHSL LYGTNPLDGQ KLDPRILLGD  
DSQKFFSSLP CGGLGVDSDT IWNELHSSGA ARMAVGCVIE LASKVASGEL KNGFAVVRPP  
GHHAEEESTAM GFCFFNSVAI TAKYLRDQLN ISKILIVDLD VHHGNGTQQA FYADPSILYI  
SLHRYDEGNF FPGSGAPNEV GTGLGEGYNI NIAWTGGLDP PMGDVEYLEA FRTIVKPVAK  
EFDPMVLVS AGFDALEGHT PPLGGYKVTA KCFGHLTKQL MTLADGRVVL ALEGGHDLTA  
ICDASEACVN ALLGNELEPL AEDILHQSPN MNAVISLQKI IEIQSMSLKF S

**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 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.

## Product Details

- 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: HDAC9

Alternative Name: HDAC9 ([HDAC9 Products](#))

Background: Histone deacetylase 9 (HD9) (EC 3.5.1.98) (Histone deacetylase 7B) (HD7) (HD7b) (Histone deacetylase-related protein) (MEF2-interacting transcription repressor MITR),FUNCTION: Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Represses MEF2-dependent transcription. {ECO:0000269|PubMed:11535832}., FUNCTION: Isoform 3 lacks active site residues and therefore is catalytically inactive. Represses MEF2-dependent transcription by recruiting HDAC1 and/or HDAC3. Seems to inhibit skeletal myogenesis and to be involved in heart development. Protects neurons from apoptosis, both by inhibiting JUN phosphorylation by MAPK10 and by repressing JUN transcription via HDAC1 recruitment to JUN promoter.

Molecular Weight: 111.3 kDa

UniProt: [Q9UKV0](#)

Pathways: [Regulation of Muscle Cell Differentiation, Skeletal Muscle Fiber Development](#)

## 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

Application Details

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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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months