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ZMYND8 Protein (AA 1-1186) (Strep Tag)





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Overview

Quantity:	1 mg
Target:	ZMYND8
Protein Characteristics:	AA 1-1186
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ZMYND8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:

MDISTRSKDP GSAERTAQKR KFPSPPHSSN GHSPQDTSTS PIKKKKKPGL LNSNNKEQSE LRHGPFYYMK QPLTTDPVDV VPQDGRNDFY CWVCHREGQV LCCELCPRVY HAKCLRLTSE PEGDWFCPEC EKITVAECIE TQSKAMTMLT IEQLSYLLKF AIQKMKQPGT DAFQKPVPLE QHPDYAEYIF HPMDLCTLEK NAKKKMYGCT EAFLADAKWI LHNCIIYNGG NHKLTQIAKV VIKICEHEMN EIEVCPECYL AACQKRDNWF CEPCSNPHPL VWAKLKGFPF WPAKALRDKD GQVDARFFGQ HDRAWVPINN CYLMSKEIPF SVKKTKSIFN SAMQEMEVYV ENIRRKFGVF NYSPFRTPYT PNSQYQMLLD PTNPSAGTAK IDKQEKVKLN FDMTASPKIL MSKPVLSGGT GRRISLSDMP RSPMSTNSSV HTGSDVEQDA EKKATSSHFS ASEESMDFLD KSTASPASTK TGQAGSLSGS PKPFSPQLSA PITTKTDKTS TTGSILNLNL DRSKAEMDLK ELSESVQQQS TPVPLISPKR QIRSRFQLNL DKTIESCKAQ LGINEISEDV YTAVEHSDSE DSEKSDSSDS EYISDDEQKS KNEPEDTEDK EGCQMDKEPS AVKKKPKPTN PVEIKEELKS TSPASEKADP GAVKDKASPE PEKDFSEKAK PSPHPIKDKL KGKDETDSPT VHLGLDSDSE SELVIDLGED

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.
- 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 posttranslational 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.

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.
- 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:

ZMYND8

Alternative Name:

ZMYND8 (ZMYND8 Products)

Background:

MYND-type zinc finger-containing chromatin reader ZMYND8 (Cutaneous T-cell lymphoma-associated antigen se14-3) (CTCL-associated antigen se14-3) (Protein kinase C-binding protein 1) (Rack7) (Transcription coregulator ZMYND8) (Zinc finger MYND domain-containing protein 8),FUNCTION: Chromatin reader that recognizes dual histone modifications such as histone H3.1 dimethylated at 'Lys-36' and histone H4 acetylated at 'Lys-16' (H3.1K36me2-H4K16ac) and histone H3 methylated at 'Lys-4' and histone H4 acetylated at 'Lys-14' (H3K4me1-H3K14ac) (PubMed:26655721, PubMed:31965980, PubMed:36064715, PubMed:27477906). May act as a transcriptional corepressor for KDM5D by recognizing the dual histone signature H3K4me1-H3K14ac (PubMed:27477906). May also act as a transcriptional corepressor for KDM5C and EZH2 (PubMed:33323928). Recognizes acetylated histone H4 and recruits the NuRD chromatin remodeling complex to damaged chromatin for transcriptional repression and double-strand break repair by homologous recombination (PubMed:30134174, PubMed:25593309, PubMed:27732854). Also activates transcription elongation by RNA polymerase II through recruiting the P-TEFb complex to target promoters (PubMed:30134174, PubMed:26655721).

Localizes to H3.1K36me2-H4K16ac marks at all-trans-retinoic acid (ATRA)-responsive genes and positively regulates their expression (PubMed:26655721). Promotes neuronal differentiation by associating with regulatory regions within the MAPT gene, to enhance transcription of a protein-coding MAPT isoform and suppress the non-coding MAPT213 isoform (PubMed:36064715, PubMed:35916866, PubMed:30134174). Suppresses breast cancer, and prostate cancer cell invasion and metastasis (PubMed:27477906, PubMed:31965980, PubMed:33323928). {ECO:0000269|PubMed:25593309, ECO:0000269|PubMed:27732854, ECO:0000269|PubMed:30134174, ECO:0000269|PubMed:31965980, ECO:0000269|PubMed:33323928, ECO:0000269|PubMed:35916866, ECO:0000269|PubMed:33323928, ECO:0000269|PubMed:35916866, ECO:0000269|PubMed:36064715}.

Molecular Weight:

131.7 kDa

UniProt:

Q9ULU4

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!

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,

Handling

	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

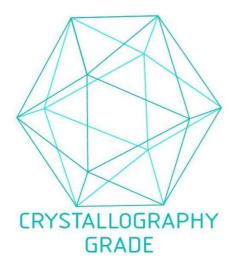


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process