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Datasheet for ABIN3093008

IDE Protein (AA 1-1019) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	IDE
Protein Characteristics:	AA 1-1019
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IDE protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MRYRLAWLLH PALPSTFRSV LGARLPPPER LCGFQKKTYS KMNNPAIKRI GNHITKSPED
KREYRGLELA NGIKVLLISD PTTDKSSAAL DVHIGSLSDP PNIAGLSHFC EHMLFLGTTK
YPKENEYSQF LSEHAGSSNA FTSGEHTNYY FVDSHEHLEG ALDRFAQFFL CPLFDESCDK
REVNAVDSSEH EKNVMNDAWR LFQLEKATGN PKHPFSKFGT GNKYTLETRP NQEGIDVRQE
LLKFHSAYYS SNLMAVCVLG RESLDDLTNL VVKLFSEVEN KNVPLPEFPE HPFQEEHLKQ
LYKIVPIKDI RNLYVTFPIP DLQKYYKSNP GHYLGHLIGH EGPGSLLSEL KSKGWVNTLV
GGQKEGARGF MFFIINVDLT EEGLLHVEDI ILHMFQYIQK LRAEGPQEWV FQECKDLNAV
AFRFKDKERP RGYTSKIAGI LHYYPLEEVL TAEYLLEEFR PDLIEMVLDK LRPENVRVAI
VSKSFEKTD RTEEWYGTQY KQEAIPEVI KKWQNADLNG KFKLPTKNEF IPTNFEILPL
EKEATPYPAL IKDTAMSKLW FKQDDKFFLP KACLNFEEFFS PFAYVDPLHC NMAYLYLELL
KDSLNEYAYA AELAGLSYDL QNTIYGMYS VKGYNDKQPI LLKKIIEKMA TFEIDEKRFE
IIEKAYMRSL NNFRAEQPHQ HAMYYLRLLM TEVAWTKDEL KEALDDVTLP RLKAFIPQLL

SRLHIEALLH GNITKQAALG IMQMVEDTLI EHAHTKPLLP SQLVRYREVQ LPDRGWVYQ
QRNEVHNNCG IEIYYQTDQM STSENMFLLE FCQIISEPCF NTLRTKEQLG YIVFSGPRRA
NGIQGLRFII QSEKPPHYLE SRVEAFLITM EKSIEDMTEE AFQKHIQALA IRRLDKPKKL
SAECAKYWGE IISQQYNFDR DNTEVAYLKT LTKEDIIFY KEMLAVDAPR RHKVSVHVLA
REMDSCPVVG EFPCQNDINL SQAPALPQPE VIQNMTEFKR GLPLFPLVKP HINFMAAKL

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 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 in several dilutions and is measured against its

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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®): <ol style="list-style-type: none">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:	IDE
Alternative Name:	IDE (IDE Products)
Background:	Insulin-degrading enzyme (EC 3.4.24.56) (Abeta-degrading protease) (Insulin protease) (Insulinase) (Insulysin),FUNCTION: Plays a role in the cellular breakdown of insulin, APP peptides, IAPP peptides, natriuretic peptides, glucagon, bradykinin, kallidin, and other peptides, and thereby plays a role in intercellular peptide signaling (PubMed:2293021, PubMed:10684867, PubMed:26968463, PubMed:17051221, PubMed:17613531, PubMed:18986166, PubMed:19321446, PubMed:23922390, PubMed:24847884, PubMed:26394692, PubMed:29596046, PubMed:21098034). Substrate binding induces important conformation changes, making it possible to bind and degrade larger substrates, such as insulin (PubMed:23922390, PubMed:26394692, PubMed:29596046). Contributes to the regulation of peptide hormone signaling cascades and regulation of blood glucose homeostasis via its role in the degradation of insulin, glucagon and IAPP (By similarity). Plays a role in the degradation and clearance of APP-derived amyloidogenic peptides that are secreted by neurons and microglia (PubMed:9830016, PubMed:26394692) (Probable). Degrades the natriuretic peptides ANP, BNP and CNP, inactivating their ability to raise intracellular cGMP (PubMed:21098034). Also degrades an aberrant frameshifted 40-residue form of NPPA (fsNPPA) which is associated with familial atrial fibrillation in heterozygous patients (PubMed:21098034). Involved in antigen

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processing. Produces both the N terminus and the C terminus of MAGEA3-derived antigenic peptide (EVDPIGHLY) that is presented to cytotoxic T lymphocytes by MHC class I. {ECO:0000250|UniProtKB:Q9JHR7, ECO:0000269|PubMed:10684867, ECO:0000269|PubMed:17051221, ECO:0000269|PubMed:17613531, ECO:0000269|PubMed:18986166, ECO:0000269|PubMed:19321446, ECO:0000269|PubMed:20364150, ECO:0000269|PubMed:21098034, ECO:0000269|PubMed:2293021, ECO:0000269|PubMed:23922390, ECO:0000269|PubMed:24847884, ECO:0000269|PubMed:26394692, ECO:0000269|PubMed:26968463, ECO:0000269|PubMed:29596046, ECO:0000269|PubMed:9830016, ECO:0000305|PubMed:23922390}., FUNCTION: (Microbial infection) The membrane-associated isoform acts as an entry receptor for varicella-zoster virus (VZV). {ECO:0000269|PubMed:17055432, ECO:0000269|PubMed:17553876}.

Molecular Weight: 118.0 kDa

UniProt: [P14735](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

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, 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