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Datasheet for ABIN3137257  
**IDE Protein (AA 1-1019) (Strep Tag)**

### Overview

Quantity:	1 mg
Target:	IDE
Protein Characteristics:	AA 1-1019
Origin:	Mouse
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: MRNGLVWLLH PALPGTLRSI LGARPPPAKR LCGFPKQTY S TMSNPAIQRI EDQIVKSPED  
KREYRGLELA NGIKVLLISD PTTDKSSAAL DVHIGSLSDP PNIPGLSHFC EHMLFLGTTK  
YPKENEYSQF LSEHAGSSNA FTSGEHTNYY FVDSHEHLEG ALDRFAQFFL CPLLDASCKD  
REVNAV DSEH EKNVMNDAWR LFQLEKATGN PKHPFSKFGT GNKYTLETRP NQEGIDVREE  
LLKFHSTYYS SNLMAICVLG RESLDDLNL VVKLFSEVEN KNVPLPEFPE HPFQEEHLRQ  
LYKIVPIKDI RNLYVTFPIP DLQQYYKSNP GYYLGH LIGH EGPGSLLSEL KSKGWVNTLV  
GGQKEGARGF MFFIINV DLT EEGLLHVEDI ILHMFQYIQK LRAEGPQEWV FQECKDLNAV  
AFRFKDKERP RGYTSKIAGK LHYYPLNGVL TAEYLLEEFR PDLIDMVL DK LRPENVRVAI  
VSKSFE GKT D RTEQWYGTQY KQEAIPE DVI QKWQNADLNG KFKLPTKNEF IPTNFEILSL  
EKDATPYPAL IKDTAMSKLW FKQDDKFFLP KA CLNFEFFS PFAYVDPLHC NMAYLYLELL  
KDSLNEYAYA AELAGLSYDL QNTIYGM YLS VKRYNDKQPI LLKKITEKMA TFEIDKKRFE  
IIEKAYMRSL NNFRAEQPHQ HAMYYLRLLM TEVAWTKDEL KEALDDVTLP RLKAFIPQLL

SRLHIEALLH GNITKQAALG VMQMVEDTLI EHAHTKPLLP SQLVRYREVQ LPDRGWVFVYQ  
QRNEVHNNCG IEIYYQTDQM STSENMFLLEL FCQIISEPCF NTLRTKEQLG YIVFSGPRRA  
NGIQGLRFII QSEKPPHYLE SRVEAFLITM EKAIEDMTEE AFQKHIQALA IRRLDKPKKL  
SAECAKYWGE IISQQYNYDR DNIEVAYLKT LTKDDIIRFY QEMLAVDAPR RHKVSVHVLV  
REMDSCPVVG EFPSQNDINL SEAPPLPQPE VIHNMTEFKR 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.**

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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!

#### 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.

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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)

## Target Details

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Target:	IDE
Alternative Name:	Ide ( <a href="#">IDE Products</a> )
Background:	Insulin-degrading enzyme (EC 3.4.24.56) (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:9830016, PubMed:12634421, PubMed:12732730, PubMed:24847884, PubMed:26394692). Substrate binding induces important conformation changes, making it possible to bind and degrade larger substrates, such as insulin (By similarity). 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 (PubMed:24847884, PubMed:26394692). Plays a role in the degradation and clearance of APP-derived amyloidogenic peptides that are secreted by neurons and microglia (PubMed:9830016). Degrades the natriuretic peptides ANP, BNP and CNP, inactivating their ability to raise intracellular cGMP (By similarity). Also degrades an aberrant frameshifted 40-residue form of NPPA (fsNPPA) which is associated with familial atrial fibrillation in heterozygous patients (By similarity). Involved in antigen 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:P14735, ECO:0000269 PubMed:12634421, ECO:0000269 PubMed:12732730, ECO:0000269 PubMed:24847884, ECO:0000269 PubMed:26394692, ECO:0000269 PubMed:9830016}.

## Target Details

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Molecular Weight:	117.8 kDa
UniProt:	<a href="#">Q9JHR7</a>
Pathways:	<a href="#">SARS-CoV-2 Protein Interactome</a>

## Application Details

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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:	<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

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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)