

Datasheet for ABIN3095761

IARS Protein (AA 1-1262) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	IARS
Protein Characteristics:	AA 1-1262
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This IARS protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MLQQVPENIN FPAEEEEKILE FWTEFNCFQE CLKQSKHKPK FTFYDGPPFA TGLPHYGHIL AGTIKDIVTR YAHQSGFHVD RRFQWDCHGL PVEYEIDKTL GIRGPEDVAK MGITEYNNQC RAIVMRYSAE WKSTVSRLGR WIDFDNDYKT LYPQFMESVW WVFKQLYDKG LVYRGVKVMP FSTACNTPLS NFESHQNYKD VQDPSVFVTF PLEEDETVSL VAWTTTPWTL PSNLAVCVNP EMQYVVIKDV ARGRLILME ARLSALYKLE SDYEILERFP GAYLKGKKYR PLFDYFLKCK ENGAFTVLVD NYVKEEEGTG VVHQAPYFGA EDYRVCMDFN IIRKDSL PVC PVDASGCFTT EVTDFAGQYV KDADKSIIRT LKEQGRLVA TTFTHSYPFC WRSDTPLIYK AVPSWFVRVE NMVDQLLRNN DLCYWVPELV REKRFGNWLK DARDWTISRN RYWGTPILW VSDDFEEVVC IGSVAELEEL SGAKISDLHR ESVDHLTIPS RCGKGS LHRI SEVFDCWFES GSMPYAQVHY PFENKREFED AFPADFIAEG IDQTRGW FYT LLVLATALFG QPPFKNVIVN GLVLASDGQK MSKRKKNYPD PVSIIQKYGA DALRLYLINS PVVRAENLRF KEEGVRDVLK DVLLPWYNAY RFLIQNVLR L QKEEEIEFLY NENTVRESPN ITDRWILSF M QSLIGFFETE MAAYRLYT VV
-----------	--

PRLVKFVDIL TNWYVRMNRR RLKGENGMED CVMaletLFS VLLSLCRLMA PYTPFLTELM
 YQNLKVLIDP VSVQDKDTLS IHYLMlPRVR EELIDKKTES AVSQMQSVIE LGRVIRDRT
 IPIKYPLKEI VVIHQDPEAL KDIKSLEKYI IEELNVRKVT LSTDKNKYGI RLRAEPDHMV
 LGKRLKGAFK AVMTSIKQLS SEELEQFQKT GTIVVEGHl HDIEDRLMYT FDQATGGTAQ
 FEAHSDAQAL VLLDVTPDQS MVDEGMAREV INRIQKLRRK CNLVPTDEIT VYYKAKSEG
 YLNSVIESHT EFIFTTIKAP LKPYPVSPD KVLIQEKTQL KGSELEITLT RGSSLPGPAC
 AYYNLNICAN GSEQGGVLLL ENPKGDNRLD LLKLKSVVTS IFGVKNTela VFHDETEIQN
 QTDLLSLSGK TLCVTagsAP SLINSSSTLL CQYINLQLLN AKPQECLMGT VGTLLLENPL
 GQNGLTHQGL LYEAakVFGL RSRKLKLFN ETQTQEITED IPVKTlNMKT VYVSVLPPTA DF

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:	<div> Key Benefits: <ul style="list-style-type: none"> • 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). </div> <div> <p>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.</p> <p>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.</p> </div> <div> Expression System: <ul style="list-style-type: none"> • 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. • 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! </div>
------------------	--

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:	IARS
Alternative Name:	IARS1 (IARS Products)
Background:	Isoleucine--tRNA ligase, cytoplasmic (EC 6.1.1.5) (Isoleucyl-tRNA synthetase) (IRS) (IleRS),FUNCTION: Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. {ECO:0000269 PubMed:8052601}.
Molecular Weight:	144.5 kDa
UniProt:	P41252

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