



[Go to Product page](#)

Datasheet for ABIN3121817
USP39 Protein (AA 1-564) (Strep Tag)

Overview

Quantity:	1 mg
Target:	USP39
Protein Characteristics:	AA 1-564
Origin:	Mouse
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP39 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MSSRSKRQSH GSTRGKRESE SRGSSGRIKK ERDREKEPEA ASSRGSPVRV KREAEPAAARE
VPAPALPVVR VKREREDED SEPEREVRRAK NGRVDESDRR SRHCPYLDTI NRSVLDFDFE
KLCISLSHI NAYAACLVCCK YFQGRGLKSH AYIHSVQFSH HVFLNLHTLK FYCLPDNYEI
IDSSLEDITY VLKPTFTKQQ IANLDKQAKL SRAYDGTTYL PGIVGLNNIK ANDYANAVLQ
ALSNVPPLRN YFLEEDNYKN IKRPPGDIMF LLVQRFGELM RKLWNPRNFK AHVSPHEMLQ
AVVLCSSKTF QITKQGDGVD FLSWFLNALH SALGGTKKKK KTIVNDVFQG SMRIFTKKLP
HPDLPAEEKE QLLHNDEYQE TMVESTFMYL TLDLPTAPLY KDEKEQLIIP QVPLFNILAK
FNGITEKEYK TYKENFLKRF QLTCLPPYLI FCIKRFTKNN FFVEKNPTIV NFPITNVDLR
EYLSEEVQAV HKNTTYDLIA NIVHDGKPSE GSYRIHVLHH GTGKWEYELQD LQVTDILPQM
ITLSEAYIQI WKRRDNDNEDN QQGA

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 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.

Product Details

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: $\geq 80\%$ 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

Target: USP39

Alternative Name: Usp39 ([USP39 Products](#))

Background: Ubiquitin carboxyl-terminal hydrolase 39 (EC 3.4.19.12) (U4/U6.U5 tri-snRNP-associated 65 kDa protein),FUNCTION: Deubiquitinating enzyme that plays a role in many cellular processes including cellular antiviral response, epithelial morphogenesis, DNA repair or B-cell development (PubMed:35139388, PubMed:35440748, PubMed:36651806). Plays a role in pre-mRNA splicing as a component of the U4/U6-U5 tri-snRNP, one of the building blocks of the precatalytic spliceosome (By similarity). Specifically regulates immunoglobulin gene rearrangement in a spliceosome-dependent manner, which involves modulating chromatin interactions at the Igh locus and therefore plays an essential role in B-cell development (By similarity). Regulates AURKB mRNA levels, and thereby plays a role in cytokinesis and in the spindle checkpoint. Regulates apoptosis and G2/M cell cycle checkpoint in response to DNA damage by deubiquitinating and stabilizing CHK2. Plays also an important role in DNA repair by controlling the recruitment of XRCC4/LIG4 to DNA double-strand breaks for non-homologous end-joining repair. Participates in antiviral activity by affecting the type I IFN signaling by stabilizing STAT1 and decreasing its 'Lys-6'-linked ubiquitination (By similarity). Contributes to non-canonical Wnt signaling during epidermal differentiation (By similarity). Acts as a negative regulator NF-kappa-B activation through deubiquitination of 'Lys-48'-linked ubiquitination of NFKBIA (By similarity). {ECO:0000250|UniProtKB:Q53GS9, ECO:0000269|PubMed:35139388, ECO:0000269|PubMed:35440748, ECO:0000269|PubMed:36651806}.

Molecular Weight: 65.1 kDa

UniProt: [Q3TIX9](#)

Pathways: [Ribonucleoprotein Complex Subunit Organization](#)

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.

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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)
