

Datasheet for ABIN3075216
USP18 Protein (AA 1-372) (Strep Tag)[Go to Product page](#)

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Overview

Quantity:	1 mg
Target:	USP18
Protein Characteristics:	AA 1-372
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP18 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MSKAFGLLRQ ICQSILAESS QSPADLEEK EEDSNMKREQ PRERPRAWDY PHGLVGLHNI GQTCCLNSLI QVFVMNVDFTRILKRITVPR GADEQRRSVP FQMLLLLEKM QDSRQKAVRP LELAYCLQKC NVPLFVQHDA AQLYLKLWNL IKDQITDVHL VERLQALYTI RVKDSLICVD CAMESSRNSS MLTLPLSLFD VDSKPLKTLE DALHCFQPR ELSSKSKCFC ENCGKKTRGK QVLKLTHLPQ TLTIHLMRFS IRNSQTRKIC HSLYFPQSLD FSQILPMKRE SCDAEEQSGG QYELFAVIAH VGMADSGHYC VYIRNAVDGK WFCFNDSNIC LVSWEIQCT YGNPNYHWQE TAYLLVYMKM EC</p> <p>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.</p>
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.
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.

Product Details

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:	USP18
Alternative Name:	USP18 (USP18 Products)
Background:	<p>Ubl carboxyl-terminal hydrolase 18 (EC 3.4.19.12) (43 kDa ISG15-specific protease) (hUBP43) (ISG15-specific-processing protease) (Ubl thioesterase 18),FUNCTION: Interferon-induced ISG15-specific protease that plays a crucial role for maintaining a proper balance of ISG15-conjugated proteins in cells (PubMed:11788588). Regulates protein ISGylation by efficiently cleaving ISG15 conjugates linked via isopeptide bonds. Regulates T-cell activation and T-helper 17 (Th17) cell differentiation by deubiquitinating TAK1, likely to keep TAK1-TAB complexes in steady conditions (PubMed:23825189). In turn, restricts activation of NF-kappa-B, NFAT, and JNK as well as expression of IL2 in T-cells after TCR activation (PubMed:23825189). Acts as a molecular adapter with USP20 to promote innate antiviral response through deubiquitinating STING1 (PubMed:27801882). Involved also in the negative regulation of the inflammatory response triggered by type I interferon (PubMed:28165510, PubMed:27325888). Upon recruitment by STAT2 to the type I interferon receptor subunit IFNAR2 interferes with the assembly of the ternary interferon-IFNAR1-IFNAR2 complex and acts as a negative regulator of the type I interferon signaling pathway (PubMed:28165510). {ECO:0000269 PubMed:11788588, ECO:0000269 PubMed:23825189, ECO:0000269 PubMed:27325888, ECO:0000269 PubMed:27801882, ECO:0000269 PubMed:28165510}., FUNCTION: [Isoform 2]: Has enzymatic activity similar to isoform 1 and interferes with type I interferon signaling. Major deISGylation enzyme for nuclear proteins (PubMed:22170061). {ECO:0000269 PubMed:22170061}.</p>
Molecular Weight:	43.0 kDa
UniProt:	Q9UMW8

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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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