Datasheet for ABIN3094615

PIWIL1 Protein (AA 1-861) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PIWIL1
Protein Characteristics:	AA 1-861
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIWIL1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MTGRARARAR GRARGQETAQ LVGSTASQQP GYIQPRPQPP PAEGELFGRG RQRGTAGGTA KSQGLQISAG FQELSLAERG GRRRDFHDLG VNTRQNLDHV KESKTGSSGI IVRLSTNHFR LTSRPQWALY QYHIDYNPLM EARRLRSALL FQHEDLIGKC HAFDGTILFL PKRLQQKVTE VFSKTRNGED VRITITLTNE LPPTSPTCLQ FYNIIFRRLL KIMNLQQIGR NYYNPNDPID IPSHRLVIWP GFTTSILQYE NSIMLCTDVS HKVLRSETVL DFMFNFYHQT EEHKFQEQVS KELIGLVVLT KYNNKTYRVD DIDWDQNPKS TFKKADGSEV SFLEYYRKQY NQEITDLKQP VLVSQPKRRR GPGGTLPGPA MLIPELCYLT GLTDKMRNDF NVMKDLAVHT RLTPEQRQRE VGRLIDYIHK NDNVQRELRD WGLSFDSNLL SFSGRILQTE KIHQGGKTFD YNPQFADWSK ETRGAPLISV KPLDNWLLIY TRRNYEAANS LIQNLFKVTP AMGMQMRKAI MIEVDDRTEA YLRVLQQKVT ADTQIVVCLL SSNRKDKYDA IKKYLCTDCP TPSQCVVART LGKQQTVMAI ATKIALQMNC KMGGELWRVD IPLKLVMIVG IDCYHDMTAG RRSIAGFVAS INEGMTRWFS

RCIFQDRGQE LVDGLKVCLQ AALRAWNSCN EYMPSRIIVY RDGVGDGQLK TLVNYEVPQF LDCLKSIGRG YNPRLTVIVV KKRVNTRFFA QSGGRLQNPL PGTVIDVEVT RPEWYDFFIV SQAVRSGSVS PTHYNVIYDN SGLKPDHIQR LTYKLCHIYY NWPGVIRVPA PCQYAHKLAF LVGQSIHREP NLSLSNRLYY L

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	PIWIL1
Alternative Name:	PIWIL1 (PIWIL1 Products)
Background:	Piwi-like protein 1 (EC 3.1.26.-),FUNCTION: Endoribonuclease that plays a central role in postnatal germ cells by repressing transposable elements and preventing their mobilization, which is essential for the germline integrity. Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons. Directly binds methylated piRNAs, a class of 24 to 30 nucleotide RNAs that are generated by a Dicer-independent mechanism and are primarily derived from transposons and other repeated sequence elements. Strongly prefers a uridine in the first position of their guide (g1U preference, also named 1U-bias). Not involved in the piRNA amplification loop, also named ping-pong amplification cycle. Acts as an endoribonuclease that cleaves transposon messenger RNAs. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation. Probable component of some RISC complex, which mediates RNA cleavage and translational silencing. Also plays a role in the formation of chromatoid bodies and is required for some miRNAs stability. Required to sequester RNF8 in the cytoplasm until late spermatogenesis, RNF8 being released upon ubiquitination and degradation of PIWIL1. {ECO:0000250|UniProtKB:Q9JMB7}., FUNCTION: [Isoform 3]: May be a negative developmental regulator (PubMed:12037681, PubMed:16287078). {ECO:0000269|PubMed:12037681, ECO:0000269|PubMed:16287078}.
Molecular Weight:	98.6 kDa
UniProt:	Q96J94

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

Application Details

	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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months