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Datasheet for ABIN3094579

PIWIL3 Protein (AA 1-882) (Strep Tag)

1 Image

Overview

| | |
|-------------------------------|---|
| Quantity: | 1 mg |
| Target: | PIWIL3 |
| Protein Characteristics: | AA 1-882 |
| Origin: | Human |
| Source: | Tobacco (<i>Nicotiana tabacum</i>) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This PIWIL3 protein is labelled with Strep Tag. |
| Application: | ELISA, SDS-PAGE (SDS), Western Blotting (WB) |

Product Details

Sequence: MPGRARTRAR GRARRRESYQ QEAPGGPRAP GSATTQEPPQ LQSTPRPLQE EVPVVRPLQP
RAARGGAGGG AQSQGVKEPG PEAGLHTAPL QERRIGGVFQ DLVVNTRQDM KHKVDSKTGS
EGTVVQLLAN HFRVISRPQW VAYKYNVDYK PDIEDGNLRT ILLDQHRRKF GERHIFDGNS
LLLSRPLKER RVEWLSTTKD KNIVKITVEF SKELTPTSPD CLRYYNILFR RTFKLLDFEQ
VGRNYYTKKK AIQLYRHGTS LEIWLGYVTS VLQYENSITL CADVSHKLLR IETAYDFIKR
TSAQAQTGNI REEVTNKLIG SIVLTKYNNK TYRVDDIDWK QNPEDTFNKS DGSKITYIDY
YRQHQKEIVT VKKQPLLVSQ GRWKKGLTGT QREPILLIPQ LCHMTGLTDE ICKDYSIVKE
LAKHTRLSPR RRHHTLKEFI NTLQDNKKVR ELLQLWDLKF DTNFLSVPGR VLKNANIVQG
RRMVKANSQG DWSREIRELP LLNAMPLHSW LILYSRSSH EAMSLKGHLQ SVTAPMGITM
KPAEMIEVDG DANSYIDTLR KYTRPTLQMG MSCLLVFKVI CILPNDDKRR YDSIKRYLCT
KCPIPSQCWV KKTLEKVQAR TIVTKIAQQM NCKMGGALWK VETDVQRTMF VGIDCFHDIV
NRQKSIAGFV ASTNAELTKW YSQCVIQKTG EELVKELEIC LKAALDVWCK NESSMPHSVI

VYRDGVGDGQ LQALLDHEAK KMSTYLKTIS PNNFTLAFIV VKKRINTRFF LKHGSNFKNP
PPGTVIDVEL TRNEWYDFFI VSQSVQDGTV TPTHYNVIYD TIGLSPDTVQ RLTYCLCHMY
YNLPGIIRVP APCHYAHKLA YLVGQSIHQE PNRSLSTRLF YL

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.

Product Details

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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">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

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|-------------------|---|
| Target: | PIWIL3 |
| Alternative Name: | PIWIL3 (PIWIL3 Products) |
| Background: | Piwi-like protein 3,FUNCTION: May play a role during spermatogenesis 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 govern the methylation and subsequent repression of transposons. Directly binds 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. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation (By similarity). {ECO:0000250 UniProtKB:Q9JMB7}. |
| Molecular Weight: | 101.1 kDa |
| UniProt: | Q7Z3Z3 |

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: | ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from |

Application Details

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. 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