Datasheet for ABIN3136459

PIWIL4 Protein (AA 1-848) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	PIWIL4
Protein Characteristics:	AA 1-848
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIWIL4 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MSGRARVRAR GITTGHSARE VGRSSRDLMV TSASPGDSEA GGGTSVISQP YELGVSSGDG GRTFMERRGK GRQDFEELGV CTREKLTHVK DCKTGSSGIP VRLVTNLFNL DLPQDWQLYQ YHVTYSPDLA SRRLRIALLY NHSILSDKAK AFDGASLFLS EKLDQKVTEL TSETQRGETI KITLTLTSKL FPNSPVCIQF FNVIFRKILK NLSMYQIGRN FYKPSEPVEI PQYKLSLWPG FAISVSHFES KLLFNADVNY KVLRNETVLD FMTDLCLRTG MSCFTEMCHK QLVGLVVLTR YNNKTYRIDD IDWSVKPTQA FQKRDGSEVT YVDYYKQQYD ITLSDLNQPV LVSLLKRKRN DNSEPQMVHL MPELCFLTGL SSQATSDFRL MKAVAEETRL SPVGRQQQLA RLVDDIQRNP VARFELETWG LHFGSQLSLT GRVVPSEKIL LQDHTCQPAF AADWSKDMRS CKVLSSQPLN RWLIVCCNRA EHLIEAFLSC LRRVGGSMGF NVGYPKIIKV DETPAAFLRA IQVHGDPDVQ LVMCILPSNQ KNYYDSIKKY LSSDCPVPSQ CVLTRTLNKQ GTMLSVATKI AMQMTCKLGG ELWSVEIPLK SLMVVGIDIC RDALNKNVVV VGFVASINSR ITRWFSRCVL QRTAADIADC LKVCMTGALN RWYRHNHDLP ARIVVYRDGV GNGQLKAVLE YEVPQLLKSV TECGSDARSC

Product Details

	RLSVVVVRKR CLLRLFASTD HTVQNPPLGT VVDSEATRPE WYDFYLISQT ANRGTVSPTH YNVIYDDNAL KPDHMQRLTF KLCHLYYNWQ GLISVPAPCQ YAHKLTFLVA QSVHKEPSLE LANNLFYL **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Mouse Piwil4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. 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. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered

Product Details

Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	PIWIL4
Alternative Name:	Piwil4 (PIWIL4 Products)
Background:	Plays a central 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 governs 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. Associates with secondary piRNAs antisense and PIWIL2/MILI is required for such association. The piRNA process acts upstream of known mediators of DNA methylation. Participates in a piRNA amplification loop. Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation. {ECO:0000269|PubMed:17395546, ECO:0000269|PubMed:18381894, ECO:0000269|PubMed:18922463, ECO:0000269|PubMed:26669262}.
Molecular Weight:	96.7 kDa Including tag.
UniProt:	Q8CGT6

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 gurantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
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