Datasheet for ABIN7554942

PIWIL2 Protein (AA 1-973) (His tag)

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Overview

Quantity:	1 mg
Target:	PIWIL2
Protein Characteristics:	AA 1-973
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PIWIL2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant PIWIL2 Protein expressed in mammalian cells.
Sequence:	MDPFRPSFRG QSPIHPSQCQ AVRMPGCWPQ ASKPLDPALG RGAPAGRGHV FGKPEEPSTQ RGPAQRESVG LVSMFRGLGI ETVSKTPLKR EMLPSGRGIL GRGLSANLVR KDREELSPTF WDPKVLAAGD SKMAETSVGW SRTLGRGSSD ASLLPLGRAA GGISREVDKP PCTFSTPSRG PPQLSSPPAL PQSPLHSPDR PLVLTVEHKE KELIVKQGSK GTPQSLGLNL VKIQCHNEAV YQYHVTFSPN VECKSMRFGM LKDHQAVTGN VTAFDGSILY LPVKLQQVLE LKSQRKTDSA EISIKIQMTK ILEPCSDLCI PFYNVVFRRV MKLLDMKLVG RNFYDPTSAM VLQQHRLQIW PGYAASIRRT DGGLFLLADV SHKVIRNDCV LDVMHAIYQQ NKEHFQDECT KLLVGNIVIT RYNNRTYRID DVDWNKTPKD SFTMSDGKEI TFLEYYSKNY GITVKEEDQP LLIHRPSERQ DNHGMLLKGE ILLLPELSFM TGIPEKMKKD FRAMKDLAQQ INLSPKQHHS ALECLLQRIA KNEAATNELM RWGLRLQKDV HKIEGRVLPM ERINLKNTSF ITSQELNWVK EVTRDPSILT IPMHFWALFY PKRAMDQARE LVNMLEKIAG PIGMRMSPPA WVELKDDRIE TYVRTIQSTL GAEGKIQMVV CIIMGPRDDL YGAIKKLCCV QSPVPSQVVN VRTIGQPTRL RSVAQKILLQ

Product Details

	INCKLGGELW GVDIPLKQLM VIGMDVYHDP SRGMRSVVGF VASINLTLTK WYSRVVFQMP HQEIVDSLKL CLVGSLKKFY EVNHCLPEKI VVYRDGVSDG QLKTVANYEI PQLQKCFEAF ENYQPKMVVF VVQKKISTNL YLAAPQNFVT PTPGTVVDHT ITSCEWVDFY LLAHHVRQGC GIPTHYVCVL NTANLSPDHM QRLTFKLCHM YWNWPGTIRV PAPCKYAHKL AFLSGHILHH EPAIQLCENL FFL **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	PIWIL2
Alternative Name:	PIWIL2 (PIWIL2 Products)
Background:	Piwi-like protein 2 (EC 3.1.26.-) (Cancer/testis antigen 80) (CT80),FUNCTION: Endoribonuclease that plays a central role during spermatogenesis by repressing transposable elements and preventing their mobilization, which is essential for the germline integrity (By similarity). Plays an essential role in meiotic differentiation of spermatocytes, germ cell differentiation and in

Target Details

	self-renewal of spermatogonial stem cells (By similarity). 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 (By similarity). During piRNA biosynthesis, plays a key role in the piRNA amplification loop, also named ping-pong amplification cycle, by acting as a 'slicer-competent' piRNA endoribonuclease that cleaves primary piRNAs, which are then loaded onto 'slicer-incompetent' PIWIL4 (By similarity). PIWIL2 slicing produces a pre-miRNA intermediate, which is then processed in mature piRNAs, and as well as a 16 nucleotide by-product that is degraded (By similarity). Required for PIWIL4/MIWI2 nuclear localization and association with secondary piRNAs antisense (By similarity). Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation (By similarity). Indirectly modulates expression of genes such as PDGFRB, SLC2A1, ITGA6, GJA7, THY1, CD9 and STRA8 (By similarity). When overexpressed, acts as an oncogene by inhibition of apoptosis and promotion of proliferation in tumors (PubMed:16377660). Represses circadian rhythms by promoting the stability and activity of core clock components BMAL1 and CLOCK by inhibiting GSK3B-mediated phosphorylation and ubiquitination-dependent degradation of these proteins (PubMed:28903391). {ECO:0000250|UniProtKB:Q8CDG1, ECO:0000269|PubMed:16377660, ECO:0000269|PubMed:28903391}.
Molecular Weight:	109.8 kDa
UniProt:	Q8TC59
Pathways:	Stem Cell Maintenance

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months