

Datasheet for ABIN3091324 HRPT2 Protein (AA 2-531) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	HRPT2 (CDC73)
Protein Characteristics:	AA 2-531
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HRPT2 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p>ADVLSVLRQY NIKKKEIVVK GDEVIFGEFS WPKNVKTNVY VWGTGKEGQP REYYTLDSIL FLLNNVHLSH PVYVRRATE NIPVRRPDR KDLLGYLNGE ASTSASIDRS APLEIGLQRS TQVKRAADEV LAEAKKPRIE DEECVRLDKE RLAARLEGHK EGIVQTEQIR SLSEAMSVEK IAAIKAKIMA KKRSTIKTDL DDDITALKQR SFVDAEVDVT RDIVSRERWV RTRTTILQST GKNFSKNIFA ILQSVKAREE GRAPEQRPAP NAAPVDPTLR TKQPIAAYN RYDQERFKGK EETEGFKIDT MGTYHGMLTK SVTEGASARK TQTAAQPVP RVPVSQARPPP NQKKGSRTP IIPAAATSL ITMLNAKDLL QDLKFVPSDE KKKQGCQREN ETLIQRRKDQ MQPGGTAISV TVPYRVVDQP LKLPQDQWR VVAVFVQGA WQFKGWPLL PDGSPVDIFA KIKAFHLKYD EVRLDPNVQK WDVTVLELSY HKRHLDRPVF LRFWETLDYR MVKHKSHLRF</p> <p>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</p>
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Product Details

Characteristics:	<ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human CDC73 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.• State-of-the-art algorithm used for plasmid design (Gene synthesis). <p>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.</p> <p>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.</p> <p>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).</p> <p>When you order this made-to-order protein you will only pay upon receipt 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.</p> <p>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.</p> <p>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.</p>
Purification:	<p>Two step purification of proteins expressed in bacterial culture:</p> <ol style="list-style-type: none">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
Endotoxin Level:	Endotoxin has not been removed. Please contact us if you require endotoxin removal.
Grade:	Crystallography grade

Target Details

Target:	HRPT2 (CDC73)
Alternative Name:	CDC73 (CDC73 Products)
Background:	<p>Tumor suppressor probably involved in transcriptional and post-transcriptional control pathways. May be involved in cell cycle progression through the regulation of cyclin D1/PRAD1 expression. Component of the PAF1 complex (PAF1C) which has multiple functions during transcription by RNA polymerase II and is implicated in regulation of development and maintenance of embryonic stem cell pluripotency. PAF1C associates with RNA polymerase II through interaction with POLR2A CTD non-phosphorylated and 'Ser-2'- and 'Ser-5'-phosphorylated forms and is involved in transcriptional elongation, acting both independently and synergistically with TCEA1 and in cooperation with the DSIF complex and HTATSF1. PAF1C is required for transcription of Hox and Wnt target genes. PAF1C is involved in hematopoiesis and stimulates transcriptional activity of KMT2A/MLL1, it promotes leukemogenesis through association with KMT2A/MLL1-rearranged oncoproteins, such as KMT2A/MLL1-MLLT3/AF9 and KMT2A/MLL1-MLLT1/ENL. PAF1C is involved in histone modifications such as ubiquitination of histone H2B and methylation on histone H3 'Lys-4' (H3K4me3). PAF1C recruits the RNF20/40 E3 ubiquitin-protein ligase complex and the E2 enzyme UBE2A or UBE2B to chromatin which mediate monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1), UB2A/B-mediated H2B ubiquitination is proposed to be coupled to transcription. PAF1C is involved in mRNA 3' end formation probably through association with cleavage and poly(A) factors. In case of infection by influenza A strain H3N2, PAF1C associates with viral NS1 protein, thereby regulating gene transcription. Connects PAF1C with the cleavage and polyadenylation specificity factor (CPSF) complex and the cleavage stimulation factor (CSTF) complex, and with Wnt signaling. Involved in polyadenylation of mRNA precursors. {ECO:0000269 PubMed:15580289, ECO:0000269 PubMed:15632063, ECO:0000269 PubMed:15923622, ECO:0000269 PubMed:16630820, ECO:0000269 PubMed:16989776, ECO:0000269 PubMed:19136632, ECO:0000269 PubMed:19952111, ECO:0000269 PubMed:20178742, ECO:0000269 PubMed:20541477, ECO:0000269 PubMed:21329879}.</p>
Molecular Weight:	61.4 kDa Including tag.
UniProt:	Q6P1J9
Pathways:	Cellular Response to Molecule of Bacterial Origin, Stem Cell Maintenance

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.
Comment:	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