Datasheet for ABIN3092059

DDX4 Protein (AA 1-724) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	DDX4
Protein Characteristics:	AA 1-724
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDX4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MGDEDWEAEI NPHMSSYVPI FEKDRYSGEN GDNFNRTPAS SSEMDDGPSR RDHFMKSGFA SGRNFGNRDA GECNKRDNTS TMGGFGVGKS FGNRGFSNSR FEDGDSSGFW RESSNDCEDN PTRNRGFSKR GGYRDGNNSE ASGPYRRGGR GSFRGCRGGF GLGSPNNDLD PDECMQRTGG LFGSRRPVLS GTGNGDTSQS RSGSGSERGG YKGLNEEVIT GSGKNSWKSE AEGGESSDTQ GPKVTYIPPP PPEDEDSIFA HYQTGINFDK YDTILVEVSG HDAPPAILTF EEANLCQTLN NNIAKAGYTK LTPVQKYSIP IILAGRDLMA CAQTGSGKTA AFLLPILAHM MHDGITASRF KELQEPECII VAPTRELVNQ IYLEARKFSF GTCVRAVVIY GGTQLGHSIR QIVQGCNILC ATPGRLMDII GKEKIGLKQI KYLVLDEADR MLDMGFGPEM KKLISCPGMP SKEQRQTLMF SATFPEEIQR LAAEFLKSNY LFVAVGQVGG ACRDVQQTVL QVGQFSKREK LVEILRNIGD ERTMVFVETK KKADFIATFL CQEKISTTSI HGDREQRERE QALGDFRFGK CPVLVATSVA ARGLDIENVQ HVINFDLPST IDEYVHRIGR TGRCGNTGRA ISFFDLESDN HLAQPLVKVL TDAQQDVPAW LEEIAFSTYI PGFSGSTRGN VFASVDTRKG KSTLNTAGFS SSQAPNPVDD ESWD

	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.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

Product Details

	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

Target:	DDX4
Alternative Name:	DDX4 (DDX4 Products)
Background:	Probable ATP-dependent RNA helicase DDX4 (EC 3.6.4.13) (DEAD box protein 4) (Vasa homolog),FUNCTION: ATP-dependent RNA helicase required during spermatogenesis (PubMed:10920202, PubMed:21034600). Required to repress transposable elements and preventing their mobilization, which is essential for the germline integrity (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 governs the methylation and subsequent repression of transposons (By similarity). Involved in the secondary piRNAs metabolic process, the production of piRNAs in fetal male germ cells through a ping-pong amplification cycle (By similarity). Required for PIWIL2 slicing-triggered piRNA biogenesis: helicase activity enables utilization of one of the slice cleavage fragments generated by PIWIL2 and processing these pre-piRNAs into piRNAs (By similarity). {ECO:0000250|UniProtKB:Q61496, ECO:0000269|PubMed:10920202, ECO:0000269|PubMed:21034600}.
Molecular Weight:	79.3 kDa
UniProt:	Q9NQI0

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.

Application Details

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. 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