Datasheet for ABIN3128550

KHDC3 Protein (AA 1-440) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	KHDC3
Protein Characteristics:	AA 1-440
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KHDC3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MASLKRFQTL VPLDHKQGTL FEIIGEPKLP KWFHVECLED PKRLYVEPRL LEIMFGKDGE HIPHLESMLH TLIHVNVWGP ERRAEIWIFG PPPFRRDVDR MLTDLAHYCR MKLMEIEALE AGVERRRMAA HKAATQPAPV KVREAAPRPA SVKVPETATQ PAPVKVREAA PQPAPVQEVR EAAPQQASVQ EEVREAATEQ APVQEVREAA TEQAPVQEVS EAATEQAPVQ EVNEAATEQA SVQAVREAAT RPAPGKVRKA ATQPAPVQVC QEATQLAPVK VREAATQPAS GKVREAATQL APVKVRKAAT QLAPVKVHEA ATQPAPGKVS DAATQSASVQ VREAATQLSP VEATDTSQLA QVKADEAFAQ HTSGEAHQVA NGQSPIEVCE TATGQHSLDV SRALSQKCPE VFEWETQSCL DGSYVIVQPP RDAWESFIIL **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.**

Product Details

Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • 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 try to ensure that you receive soluble 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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	KHDC3
Alternative Name:	Khdc3 (KHDC3 Products)
Background:	KH domain-containing protein 3 (Protein Filia),FUNCTION: As part of the OOEP-KHDC3 scaffold, recruits BLM and TRIM25 to DNA replication forks, thereby promoting the ubiquitination of BLM by TRIM25, enhancing BLM retainment at replication forks and therefore promoting stalled replication fork restart (PubMed:29125140, PubMed:33115731). Regulates homologous recombination-mediated DNA repair via recruitment of RAD51 to sites of DNA double-strand breaks, and sustainment of PARP1 activity, which in turn modulates downstream ATM or ATR activation (PubMed:25936915, PubMed:33115731). Activation of ATM or ATR in response to DNA double-strand breaks may be cell-type specific (PubMed:25936915, PubMed:33115731). Its role in DNA double-strand break repair is independent of its role in restarting stalled replication forks (PubMed:29125140). As a member of the subcortical maternal complex (SCMC), plays an essential role for zygotes to progress beyond the first embryonic cell divisions via regulation of actin dynamics (PubMed:18804437, PubMed:29125140, PubMed:28992324, PubMed:31575650). Required for maintenance of euploidy during cleavage-stage embryogenesis (PubMed:19376971). Required for the formation of F-actin cytoplasmic lattices in oocytes which in turn are responsible for symmetric division of zygotes via the regulation of mitotic spindle formation and positioning (PubMed:25208553, PubMed:31575650). Ensures proper spindle assembly by regulating the localization of AURKA via RHOA signaling and of PLK1 via a RHOA-independent process (PubMed:19376971). Required for the localization of MAD2L1 to kinetochores to enable spindle assembly checkpoint function (PubMed:19376971). Promotes neural stem cell neurogenesis and neuronal differentiation in the hippocampus (PubMed:33115731). May regulate normal development of learning, memory and anxiety (PubMed:33115731). Capable of binding RNA (PubMed:22276159). {ECO:0000269|PubMed:18804437, ECO:0000269|PubMed:19376971, ECO:0000269|PubMed:22276159, ECO:0000269|PubMed:25208553, ECO:0000269|PubMed:25936915, ECO:0000269|PubMed:28992324, ECO:0000269|PubMed:29125140, ECO:0000269|PubMed:31575650, ECO:0000269|PubMed:33115731}.
Molecular Weight:	48.0 kDa
UniProt:	Q9CWU5

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	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 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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months