antibodies

Datasheet for ABIN3116269 Klotho beta Protein (KLB) (AA 1-1044) (Strep Tag)





Overview

Quantity:	1 mg
Target:	Klotho beta (KLB)
Protein Characteristics:	AA 1-1044
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Klotho beta protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MKPGCAAGSP GNEWIFFSTD EITTRYRNTM SNGGLQRSVI LSALILLRAV TGFSGDGRAI
	WSKNPNFTPV NESQLFLYDT FPKNFFWGIG TGALQVEGSW KKDGKGPSIW DHFIHTHLKN
	VSSTNGSSDS YIFLEKDLSA LDFIGVSFYQ FSISWPRLFP DGIVTVANAK GLQYYSTLLD
	ALVLRNIEPI VTLYHWDLPL ALQEKYGGWK NDTIIDIFND YATYCFQMFG DRVKYWITIH
	NPYLVAWHGY GTGMHAPGEK GNLAAVYTVG HNLIKAHSKV WHNYNTHFRP HQKGWLSITL
	GSHWIEPNRS ENTMDIFKCQ QSMVSVLGWF ANPIHGDGDY PEGMRKKLFS VLPIFSEAEK
	HEMRGTADFF AFSFGPNNFK PLNTMAKMGQ NVSLNLREAL NWIKLEYNNP RILIAENGWF
	TDSRVKTEDT TAIYMMKNFL SQVLQAIRLD EIRVFGYTAW SLLDGFEWQD AYTIRRGLFY
	VDFNSKQKER KPKSSAHYYK QIIRENGFSL KESTPDVQGQ FPCDFSWGVT ESVLKPESVA
	SSPQFSDPHL YVWNATGNRL LHRVEGVRLK TRPAQCTDFV NIKKQLEMLA RMKVTHYRFA
	LDWASVLPTG NLSAVNRQAL RYYRCVVSEG LKLGISAMVT LYYPTHAHLG LPEPLLHADG
	WLNPSTAEAF QAYAGLCFQE LGDLVKLWIT INEPNRLSDI YNRSGNDTYG AAHNLLVAHA

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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 posttranslational 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.

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	 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®):
	 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. 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:	Klotho beta (KLB)
Alternative Name:	KLB (KLB Products)
Background:	Beta-klotho (BKL) (BetaKlotho) (Klotho beta-like protein),FUNCTION: Contributes to the transcriptional repression of cholesterol 7-alpha-hydroxylase (CYP7A1), the rate-limiting enzyme in bile acid synthesis. Probably inactive as a glycosidase. Increases the ability of FGFR1 and FGFR4 to bind FGF21 (By similarity). {ECO:0000250}.
Molecular Weight:	119.8 kDa
UniProt:	Q86Z14
Pathways:	Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Growth Factor Binding
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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

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Application Details

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something that functions like a cell, but without the constraints of a living system - all that's
components needed for protein production (amino acids, cofactors, etc.) are added to produce
mitochondria to drive the reaction. During our lysate completion steps, the additional
protein production are removed, leaving only the protein production machinery and the
During lysate production, the cell wall and other cellular components that are not required for
modifications.
even the most difficult-to-express proteins, including those that require post-translational
Nicotiana tabacum c.v This contains all the protein expression machinery needed to produce

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

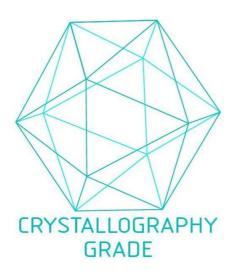


Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process

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