Datasheet for ABIN3137544

FOXO3 Protein (AA 1-672) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	FOXO3
Protein Characteristics:	AA 1-672
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FOXO3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	MAEAPASPVP LSPLEVELDP EFEPQSRPRS CTWPLQRPEL QASPAKPSGE TAADSMIPEE DDDEDDEDGG GRASSAMVIG GGVSSTLGSG LLLEDSAMLL APGGQDLGSG PASAAGALSG GTPTQLQPQQ PLPQPQPGAA GGSGQPRKCS SRRNAWGNLS YADLITRAIE SSPDKRLTLS QIYEWMVRCV PYFKDKGDSN SSAGWKNSIR HNLSLHSRFM RVQNEGTGKS SWWIINPDGG KSGKAPRRRA VSMDNSNKYT KSRGRAAKKK AALQAAPESA DDSPSQLSKW PGSPTSRSSD ELDAWTDFRS RTNSNASTVS GRLSPILAST ELDDVQDDDG PLSPMLYSSS ASLSPSVSKP CTVELPRLTD MAGTMNLNDG LAENLMDDLL DNIALPPSQP SPPGGLMQRG SSFPYTAKSS GLGSPTGSFN STVFGPSSLN SLRQSPMQTI QENRPATFSS VSHYGNQTLQ DLLASDSLSH SDVMMTQSDP LMSQASTAVS AQNARRNVML RNDPMMSFAA QPTQGSLVNQ NLLHHQHQTQ GALGGSRALS NSVSNMGLSD SSSLGSAKHQ QQSPASQSMQ TLSDSLSGSS LYSASANLPV MGHDKFPSDL DLDMFNGSLE CDMESIIRSE LMDADGLDFN FDSLISTQNV VGLNVGNFTG

Product Details

	AKQASSQSWV PG **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 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®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	FOXO3
Alternative Name:	Foxo3 (FOXO3 Products)
Background:	Forkhead box protein O3,FUNCTION: Transcriptional activator that recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3' and regulates different processes, such as apoptosis and autophagy (PubMed:18054316, PubMed:18054315, PubMed:23805378). Acts as a positive regulator of autophagy in skeletal muscle: in starved cells, enters the nucleus following dephosphorylation and binds the promoters of autophagy genes, such as GABARAP1L, MAP1LC3B and ATG12, thereby activating their expression, resulting in proteolysis of skeletal muscle proteins (PubMed:18054316, PubMed:18054315, PubMed:25402684). Triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress (By similarity). Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes induction of miR-34b and miR-34c expression, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent its translation (By similarity). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription (PubMed:23283301). Also acts as a key regulator of chondrogenic commitment of skeletal progenitor cells in response to lipid availability: when lipids levels are low, translocates to the nucleus and promotes expression of SOX9, which induces chondrogenic commitment and suppresses fatty acid oxidation (PubMed:32103177). Also acts as a key regulator of regulatory T-cells (Treg) differentiation by activating expression of FOXP3 (By similarity). {ECO:0000250|UniProtKB:O43524, ECO:0000269|PubMed:18054315, ECO:0000269|PubMed:18054316, ECO:0000269|PubMed:23283301, ECO:0000269|PubMed:23805378, ECO:0000269|PubMed:25402684, ECO:0000269|PubMed:32103177}.
Molecular Weight:	71.1 kDa
UniProt:	Q9WVH4
Pathways:	Cell Division Cycle, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Carbohydrate Homeostasis

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 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