

Datasheet for ABIN7553979  
**FOXO3 Protein (AA 1-673) (His tag)**



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## Overview

Quantity:	1 mg
Target:	FOXO3
Protein Characteristics:	AA 1-673
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This FOXO3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat FOXO3 Protein expressed in mammalian cells.
Sequence:	MAEAPASPAP LSPLEVELDP EFEPQSRPRS CTWPLQRPEL QASPAKPSGE TAADSMIPEE EDDEDDEDGG GRAGSAMAIG GGGSGTLGS GLLLEDSARV LAPGGQDPGS GPATAAGGLS GGTQALLQPQ QPLPPPQGA AGGSGQPRKC SSRRNAWGNL SYADLITRAI ESSPKRLTL SQIYEWVRC VPFKDKGDS NSSAGWKNSI RHNLSLHSRF MRVQNEG TGK SSWWIINPDG GKSGKAPRRR AVSMDNSNKY TKSRGRAAKK KAALQTAPES ADDSPSQLSK WPGSPTSRS DELDAWTD FR SRTNSNASTV SGRLSPIMAS TELDEVQDDD APLSPMLYSS SASLSPSVSK PCTVELPRLT DMAGTMNLND GLTENLMDDL LDNITLPPSQ PSPTGGLMQR SSSFPYTTKG SGLGSPTSSF NSTVFGPSSL NSLRQSPMQT IQENKPATFS SMSHYGNQTL QDLLTSDSLS HSDVMMTQSD PLMSQASTAV SAQNSRRNVM LRNDPMM SFA AQPNOGSLVN QNLLHHQHQT QGALGGSRAL SNSVSNMGLS ESSSLGSAKH QQSPVQS QM QTLSDSLSGS SLYSTSANLP VMGHEKFPD LDLDMFNGSL ECDMESIIRS ELMDADGLDF NFDLISTQN VVGLNVGNFT

GAKQASSQSW VPG **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

FOXO3

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### Alternative Name:

FOXO3 ([FOXO3 Products](#))

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### Background:

Forkhead box protein O3 (AF6q21 protein) (Forkhead in rhabdomyosarcoma-like 1),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:10102273, PubMed:16751106, PubMed:21329882, PubMed:30513302). 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 (By similarity). Triggers apoptosis in the absence of survival factors, including neuronal cell death upon oxidative stress (PubMed:10102273, PubMed:16751106). Participates in post-transcriptional regulation of MYC: following phosphorylation by MAPKAPK5, promotes

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## Target Details

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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 (PubMed:21329882). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription (PubMed:23283301). In response to metabolic stress, translocates into the mitochondria where it promotes mtDNA transcription. 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 (By similarity). Also acts as a key regulator of regulatory T-cells (Treg) differentiation by activating expression of FOXP3 (PubMed:30513302). {ECO:0000250|UniProtKB:Q9WVH4, ECO:0000269|PubMed:10102273, ECO:0000269|PubMed:16751106, ECO:0000269|PubMed:21329882, ECO:0000269|PubMed:23283301, ECO:0000269|PubMed:30513302}.

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Molecular Weight: 71.3 kDa

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UniProt: [O43524](#)

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Pathways: [Cell Division Cycle](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Carbohydrate Homeostasis](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months