

Datasheet for ABIN3092691

FOXA2 Protein (AA 1-457) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	FOXA2
Protein Characteristics:	AA 1-457
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FOXA2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MLGAVKMEGH EPDWSSYYA EPEGYSSVSN MNAGLGMNGM NTYMSMSAAA MGSGSGNMSA
GSMNMSSYVG AGMSPSLAGM SPGAGAMAGM GGSAGAAGVA GMGPHLSPL SPLGGQAAGA
MGGLAPYANM NSMSPMYGQA GLSRARDPKT YRRSYTHAKP PYSYISLITM AIQQSPNKML
TLSEIQWIM DLFPFYRQNQ QRWQNSIRHS LSFNDCFLKV PRSPDKPGKG SFWTLHPDSG
NMFENGCYLR RQKRFKCEKQ LALKEAAGAA GSGKAAAAGA QASQAQLGEA AGPASETPAG
TESPHSSASP CQEHKRGLG ELKGTAAAL SPPEPAPSPG QQQQAAAALL GPPHHPGLPP
EAHLKPEHHY AFNHPFSINN LMSSEQHHH SHHHHQPHKM DLKAYEQVMH YPGYGSPMPG
SLAMGPVTNK TGLDASPLAA DTSYYQGVYS RPIMNSS

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 Exspasy'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®):

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.

Product Details

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:	FOXA2
Alternative Name:	FOXA2 (FOXA2 Products)
Background:	<p>Hepatocyte nuclear factor 3-beta (HNF-3-beta) (HNF-3B) (Forkhead box protein A2) (Transcription factor 3B) (TCF-3B),FUNCTION: Transcription factor that is involved in embryonic development, establishment of tissue-specific gene expression and regulation of gene expression in differentiated tissues. Is thought to act as a 'pioneer' factor opening the compacted chromatin for other proteins through interactions with nucleosomal core histones and thereby replacing linker histones at target enhancer and/or promoter sites. Binds DNA with the consensus sequence 5'-[AC]A[AT]T[AG]TT[GT][AG][CT]T[CT]-3' (By similarity). In embryonic development is required for notochord formation. Involved in the development of multiple endoderm-derived organ systems such as the liver, pancreas and lungs, FOXA1 and FOXA2 seem to have at least in part redundant roles. Originally described as a transcription activator for a number of liver genes such as AFP, albumin, tyrosine aminotransferase, PEPCK, etc. Interacts with the cis-acting regulatory regions of these genes. Involved in glucose homeostasis, regulates the expression of genes important for glucose sensing in pancreatic beta-cells and glucose homeostasis. Involved in regulation of fat metabolism. Binds to fibrinogen beta promoter and is involved in IL6-induced fibrinogen beta transcriptional activation. {ECO:0000250}.</p>
Molecular Weight:	48.3 kDa
UniProt:	Q9Y261
Pathways:	Dopaminergic Neurogenesis, Regulation of Carbohydrate Metabolic Process

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

Application Details

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.

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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