Datasheet for ABIN7563180

# FOXA2 Protein (AA 1-459) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | FOXA2 |
| Protein Characteristics: | AA 1-459 |
| Origin: | Mouse |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This FOXA2 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS) |

## Product Details

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| Purpose: | Custom-made recombinat Foxa2 Protein expressed in mammalien cells. |
| Sequence: | MLGAVKMEGH EPSDWSSYYA EPEGYSSVSN MNAGLGMNGM NTYMSMSAAA MGGGSGNMSA GSMNMSSYVG AGMSPSLAGM SPGAGAMAGM SGSAGAAGVA GMGPHLSPSL SPLGGQAAGA MGGLAPYANM NSMSPMYGQA GLSRARDPKT YRRSYTHAKP PYSYISLITM AIQQSPNKML TLSEIYQWIM DLFPFYRQNQ QRWQNSIRHS LSFNDCFLKV PRSPDKPGKG SFWTLHPDSG NMFENGCYLR RQKRFKCEKQ LALKEAAGAA SSGGKKTAPG SQASQAQLGE AAGSASETPA GTESPHSSAS PCQEHKRGGL SELKGAPASA LSPPEPAPSP GQQQQAAAHL LGPPHHPGLP PEAHLKPEHH YAFNHPFSIN NLMSSEQQHH HSHHHHQPHK MDLKAYEQVM HYPGGYGSPM PGSLAMGPVT NKAGLDASPL AADTSYYQGV YSRPIMNSS **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.** |

## Product Details

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| Characteristics: | Key Benefits:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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. |
| Purity: | > 90 % as determined by Bis-Tris Page, Western Blot |
| Grade: | custom-made |

## Target Details

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| Target: | FOXA2 |
| Alternative Name: | Foxa2 (FOXA2 Products) |
| Background: | Hepatocyte nuclear factor 3-beta (HNF-3-beta) (HNF-3B) (Forkhead box protein A2),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. FOXA1 and FOXA2 are essential for hepatic specification. FOXA1 and FOXA2 are required for morphogenesis and cell differentiation during formation of the lung. FOXA1 and FOXA2 are involved in bile duct formation, they positively regulate the binding glucocorticoid receptor/NR3C1 to the IL6 promoter. FOXA1 and FOXA2 regulate multiple phases of midbrain dopaminergic neuron |

## Target Details

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| | development, they regulate expression of NEUROG2 at the beginning of mDA neurogenesis and of NR4A2 and EN1 in immature mDA neurons. Modulates the transcriptional activity of nuclear hormone receptors, inhibits AR-mediated transcription from the LCN5 promoter. Binds to fibrinogen beta promoter and is involved in IL6-induced fibrinogen beta transcriptional activation. 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. In pancreatic beta cells activates transcription of potassium channel subunits KCNJ11 and ABCC8. Involved in regulation of fat metabolism, activates transcriptional programs of lipid metabolism and ketogenesis at low insulin state. Involved in transcriptional regulation of MUC2 in the intestine. {ECO:0000250, ECO:0000269\|PubMed:11445544, ECO:0000269\|PubMed:11875061, ECO:0000269\|PubMed:15616563, ECO:0000269\|PubMed:15668254, ECO:0000269\|PubMed:15959514, ECO:0000269\|PubMed:16740652, ECO:0000269\|PubMed:17596284, ECO:0000269\|PubMed:18336786, ECO:0000269\|PubMed:19141476, ECO:0000269\|PubMed:19436110, ECO:0000269\|PubMed:8069909}. |
| Molecular Weight: | 48.5 kDa |
| UniProt: | P35583 |
| Pathways: | Dopaminergic Neurogenesis, Regulation of Carbohydrate Metabolic Process |

## 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. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |

## Handling

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| Storage Comment: | Store at -80°C. |
| Expiry Date: | 12 months |