

Product datasheet for **MC227841**

Foxa2 (NM_001291065) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Foxa2 (NM_001291065) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Foxa2
Synonyms:	Hnf-3b; HNF3-beta; Hnf3b; HNF3beta; Tcf-3b; Tcf3b
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC227841 representing NM_001291065
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCACTCGGCTTCCAGTATGCTGGGAGCCGTGAAGATGGAAGGGCAGGACCCATCCGACTGGAGCAGCT
 ACTACGCGGAGCCCGAGGGCTACTCTCCGTGAGCAACATGAACGCCGGCTGGGGATGAATGGCATGAA
 CACATACATGAGCATGTCCGCGGCTGCCATGGGCGGCGGTTCCGGCAACATGAGCGCGGGTCCATGAAC
 ATGTCATCCTATGTGGCGCTGGAATGAGCCCGTCGCTAGCTGGCATGTCCCGGGCGCCGGCGCCATGG
 CGGGCATGAGCGGCTCAGCCGGGGCGCCGGCGTGGCGGGCATGGGACCTCACCTGAGTCCGAGTCTGAG
 CCCGCTCGGGGGACAGGCGGCCGGGGCCATGGGTGGCCTTGCCCCCTACGCCAACATGAACCTGATGAGC
 CCCATGTACGGGCAGGCCGGCTGAGCCGCGCTCGGGACCCCAAGACATACCGACGCAGCTACACACAGC
 CCAAACCTCCCTACTCGTACATCTGCTCATCACCATGGCCATCCAGCAGAGCCCCAACAGATGCTGAC
 GCTGAGCGAGATCTATCAGTGGATCATGGACCTTCCCTTTCTACCGGCAGAACCAGCAGCGCTGGCAG
 AACTCCATCCGCCACTCTCTCCTTCAACGACTGCTTTCTCAAGGTGCCCGCTCGCCAGACAAGCCTG
 GCAAGGGCTCCTTCTGGACCCTGCACCCAGACTCGGGCAACATGTTTCGAGAACCGGCTGCTACCTGCGCCG
 CCAGAAGCGCTTCAAGTGTGAGAAGCAACTGGCACTGAAGGAAGCCGCGGGTGGCGCCAGTAGCGGAGGC
 AAGAAGACCGCTCCTGGGTCCCAGGCCTCTCAGGCTCAGCTCGGGGAGGCCGCGGGCTCGGCCTCCGAGA
 CTCCGGCGGGCACCGAGTCCCCCATCCAGCGCTTCTCCGTGTCAGGAGCACAAGCGAGGTGGCCTAAG
 CGAGCTAAAGGGAGCACCTGCCTCTGCGCTGAGTCTCCCGAGCCGGCGCCCTCGCTGGCAGCAGCAG
 CAGGCTGCAGCCACCTGCTGGGCCACCTCACCACCCAGGCCTGCCACCAGAGGCCACCTGAAGCCCG
 AGCACCATTACGCCTTCAACCACCCCTTCTCTATCAACAACCTCATGTCGTCGAGCAGCAACATCACC
 CAGCCACCACCACCATCAGCCCCACAAAATGGACCTCAAGGCCTACGAACAGGTGATGCACTACCCAGGG
 GGCTATGGTTCGCCATGCCAGGAGCTTGGCCATGGGCCAGTCACGAACAAAGCGGGCTGGATGCTC
 CGCCCTGGCTGCAGACACTTCTACTACCAAGGAGTGTACTCCAGGCCTATTATGAACCTATCCT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_001291065
- Insert Size:** 1398 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001291065.1](#), [NP_001277994.1](#)

RefSeq Size: 2070 bp

RefSeq ORF: 1398 bp

Locus ID: 15376

UniProt ID: [P35583](#)

Cytogenetics: 2 73.38 cM

Gene Summary: 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 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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longest isoform (a).