

Product datasheet for MC223891

Arid5b (NM_023598) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arid5b (NM_023598) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Arid5b
Synonyms:	4930580B11; 5430435G07Rik; A1467247; Desrt; Mrf2; Mrf2alpha; Mrf2beta
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223891 representing NM_023598 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCCCAACTCACTCCAGTGGGTGGCTCACCGTGTGGCTTGCACGGACCTTATATTTTTTATAAGG
CTTTTCAATCCACCTTGAAGGCAAACCAAGAATCTTGCCCTTGGCGACTTTTTCTTTGAAGATGTAC
GCCAAAGGATCCGATTTGCATAGCGGAGCTCCAGCTGTTGTGGGAAGAAAGGACCAGCCGGCAACTTTTA
TCCAGCTCGAAACTTTATTTCTCCCGAAGACACTCCCCAGGGCAGAAATAGCGACCATGGCGAGGATG
AGGTCATCGCTGTCTCTGAAAAGGTGATTGTTAAATTAGAGGACCTTGTCAAATGGGCGCATTCTGATTT
CTCCAAGTGGAGGTGTGGGCTCCGAGCCACTCCAGTGAAGTGGAGCCCTTCGGGAGAAACGGACAGAAG
GAGGCTCTGCTCAGGTACAGGCAGTCAACCCTCAACAGTGGGCTCAACTTCAAAGACGTTCTCAAGGAAA
AAGCTGATCTCGGGGAAGATGAGGAAGAAACCAACGTGATTGTGCTCAGTTACCCCCAGTACTGTGCGTA
CCGGTCCATGCTTAAACGGATCCAGGATAAGCCATCGTCCATCCTCACGGACCAGTTCGCATTAGCCCTG
GGGGCATCGCAGTGGTCAAGCAAAACCCAGATCCTGTACTGCCGGGATACCTTTGATCACCCCACTC
TGATAGAAAACGAGAGTGTGTGATGAGTTCGCGCAAATCTTAAAGGCAGACCAGCAAAAAGAAAAC
ATGTCCCGAGAGAAGAGATTCTTCAGTGGCTCAAAGGACCCCAACAATAACTGTGACGGTAAAGTTATC
AGCAAGGTGAAAGGAGAGGCCAGGTGAGCCTTGACCAAGCCGAAGAATAACCACAATAACTGTAAAAAAA
CCTCAAATGAAGAAAAGCCAAAGCTGTCTATTGGCGAAGAATGCAGGGCAGATGAACAAGCCTTCTTAGT
GGCCCTGTATAAATACATGAAAGAAAAGAAAACGCCCATCGAGCGAATTCCTACTTTGGGTTTCAAACAG
ATTAACCTTTGGACTATGTTTCAAGCTGCTCAAAAACGGGAGGATATGAAACAATAACAGCCCGCCGTC
AGTGGAAACATATTTATGACGAGTTAGGTGTAATCCTGGGAGCACCAGTGGCCACCTGTACTCGCAG
ACACTACGAAAGTTAATCCTGCCATACGAAAGATTTATTAAGGGAGAAGAAGATAAGCCTCTGCCGCA
ATCAAACCTCGGAAACAGGAAAACAATACACAGGAAAATGAGAATAAAAACAAAAGTCTCGGAAACAAAC
GTATCAAACAGGAAATGGCCAAAACAAGAAAAGAAAAGAGAACACCCCAAAACCCCAAGATACATCTGA
GGTTTCATCAGAGCAAAGGAAGGAAGAAGACGTTAAACCACAAAAGGCCCCCGAGCCTCTCCCTGCT
CCTGAAGTAAAGGGGAAACCAGAAGGCCACAAGGATCTTGGAGCGAGGGCCCGAGTCCAGAGCAGACC



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CAGAAAAGGCCAATGAACTGACCAAGGTTCCAACAGCGAGAAAGAGGCCGAGGAGATGGGAGATAAGGG
 CCTTGCCCTCTGCTTCCAAGCCCTCCCTTGCCCTCTGAAAAAGATTAGCTCCCACCCCTGGGGCTGGC
 AAACAGCCCTTGCTCTCCAGCACCCAGATGGACTCAAAGCAAGAAGCCAAACCCTGTGCTTTACAG
 AGAGCCCTGAGAAGGACCTCAAAGGAGCACCTTCTCCAGCTTCTGCCACCAAGCCACTGACAAG
 CCAGAACGAGGCAGAGGAAGAGCAGCTTCTGCCACGGCCAACTACATTGCCAACTGCACTGTGAAGTG
 GACCAGCTGGGCAGTGACGACATCCACACTGCTCTCAAGCAGACCCGAAGGTCTTGTGGTCCAATCAT
 TTGACATGTTCAAAGACAAAGACTTGACCGGCCCATGAATGAGAACCACGGACTTAACTACACGCCCT
 GCTTTACTCCCGGGCAACCCTGGTATCATGTCCCATTTGGCTAAGAAAAAGCTTTTGTCTCAGGTGAGT
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 CCAGGGAAGACCTGTGCTCGGGTTTGTCCAGGGCCACCACAGCCAAAGCTTGACCACACGGCCGTGAG
 CCGGCCATCCGTAATCCAACATGTTTCCAGGCTTCAAAAACAAGGCCTCCGAAGACAGAAAGAGCATCAAC
 GACATCTTCAAGCAGACAACTGAGCCGGTCCGATGCTCATCGATGTGGCTTCTCAAGCACCAGCTCG
 GCTCCCTGGCAGACTCTACATCTCAAACAAGAGACACAGGAGGGCAAAGATAAACTGTTAGAGAAGAG
 AGCCGTCTCCACGCCATGTGCCAGTTTCTGGCCGACTTCTACTCATCCCCGCATCTCCATAGCCTC
 TACCGGCACACAGAGCACCATCTTCAACGAACAGTCTCCAAGTATGCCGCTAGGGACCGGTACCAGG
 AATCCGAAAACGGCGCCTTTCTTCTCACAAGCACCCGGAGAAGATCCAGTCAATTATCTCGCATCTCT
 CCACCTGCAAGATAAGAAGGTGGCAGCGCAGAAGCCTTACCGATGATCAACCCACAGATCTGAGCCTT
 CCCAAGAACCACATAAACTAACAGCAAAGTCTGGCCCTGGCCACTCCACCTCGGGGTCCCAGGAGA
 TCAAAGGCGCCTCCAGTTCAGGTGTCAGCAACCAGAGTCGAGACTGTATCCCAAAGCCTGCCGGGT
 ATCGCCATGACCATGTCCGGCCCTAAGAAATACCCTGAGTCACTTGCAAGGTGAGGAAAGCCTCACCAG
 GTGAGACTGGAGAACTTCAGGAAAATGGAAGGCATGGTCCATCCATCCTGCACCGGAAGATGAGCCCGC
 AGAACATTGGAGCTGCGCGCCCATAAAGCGCAGCCTGGAGGATTTAGATCTGGTATCGCCGGAAAAA
 GGCCAGGGCTGTGTCTCCCTGGACCCAGCCAAGGAGGCTTCTGGGAAAGAAAAGCCTCCGAACAGGAG
 AGCGAGGGCAACAAGGCGCCTACGGTGGGCATTCTGGGGCTGCCTCAGAAGGGCACAAGTCCCTCTCT
 CCACCCCTATCTCCCGGTTTGTATTCTGGGAGCCTGTGTAATTCAGGCCTCAACTCCAGGCTCCCGGC
 CGGGTACTCCCATTCTCTGCAGTACTTGAAGAACCAGACGGTGTCTTCTCCTCTCATGCAACCCCTGGCT
 TTCCACTCGTGTGATGCAGAGAGGAATTTTACATCGCCGACAAATTCTCAGCAGCTGTACAGACT
 TGGCCGACGCCACCCTGTAGGAAGTCTACGGGACCTGTTGCACAACAGCATCTACCCATTAGCTGG
 TATCAACCCTCAGGCTGCCTTCCATCTCTCAGCTGTATCCGTACACCCAGCACAAAAGCTGTA

ACGGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA
 TTACAAGGATGACGACGATAAAGGTTAA

- Restriction Sites:** SgfI-NotI
- ACCN:** NM_023598
- Insert Size:** 3567 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).
- 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_023598.2](#), [NP_076087.2](#)

RefSeq Size: 4494 bp

RefSeq ORF: 3567 bp

Locus ID: 71371

UniProt ID: [Q8BM75](#)

Cytogenetics: 10 B5.1- B5.2

Gene Summary: Transcription coactivator that binds to the 5'-AATA[CT]-3' core sequence and plays a key role in adipogenesis and liver development. Acts by forming a complex with phosphorylated PHF2, which mediates demethylation at Lys-337, leading to target the PHF2-ARID5B complex to target promoters, where PHF2 mediates demethylation of dimethylated 'Lys-9' of histone H3 (H3K9me2), followed by transcription activation of target genes. The PHF2-ARID5B complex acts as a coactivator of HNF4A in liver (By similarity). Required for adipogenesis: regulates triglyceride metabolism in adipocytes by regulating expression of adipogenic genes. Overexpression leads to induction of smooth muscle marker genes, suggesting that it may also act as a regulator of smooth muscle cell differentiation and proliferation.
[UniProtKB/Swiss-Prot Function]