

## Product datasheet for **MG211012**

### **Ars2 (BC066831) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ars2 (BC066831) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ars2
Synonyms:	ASR2A, ASR2B, ASR2C, ASR2D, Asr2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG211012 representing BC066831  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGTGACAGTGATGATGAATACGACCGAAGACGCAGGGACAAATTTCAAGAGAGCGCAGCGATTATG  
 ACCGTTCCCGGAAAGGGATGAAAGACGGCGAGGGGACGATTGGAATGACCGAGAGTGGACCGTGCCG  
 GGAGCGCCGAGTCGGGGTGAATATCGAGACTACGACAGGAACCGAAGGGAGCGCTTCTCTCCCCCTCGA  
 CACGAACAAGCCCCCCAGAAGCGCATGCGGAGAGACTGGGATGAGCACAGCTCTGACCCATACCACA  
 GTGGCTATGACATGCCCTATGCTGGGGGGGTGGGGACCAACTTACGGCCCCCTCAGCCCTGGGGCCA  
 CCCAGACGTCCACATCATGCAGCACCATGTCCTGCCCATCCAGGCCAGGCTGGGCAGCATCGCAGAGATT  
 GACTTGGGGGTGCCACCGCCATAATGAAGTCCTTCAAAGAGTTCCTCTGTCTCTGGATGACTCTGTGG  
 ATGAGACAGAGGCAGTTAAACGCTACAATGACTACAAGCTGGACTCCGAAGGCAGCAGATGCAGGACTT  
 TTTCTGGCTCACAAGACGAGGAGTGGTTCGATCTAAGTACCACCCTGATGAGGTGGGAAAGCGTCGG  
 CAGGAGGCCCGGGGGCCCTGCAGAACCGCTGAAGGTGTTCTGTCCCTCATGGAGAGTGGCTGGTTTG  
 ATAACCTTCTCTTGACATAGACAAAGCTGATGCCATTGTCAAGATGCTAGATGCAGCTGTCATTAGAT  
 GGAAGGTGGCACAGAAACGATCTCCGAATTTGGAGCAGGAGGAGGAGGAACAGGCAGGCAAGACT  
 GGGGAGGCCAGCAAGAAAGAGGAGGCCGTGCTGGACCAGCCCTGGGAGAAGGAGAGCGCAAAGCCAATG  
 ATAAGGATGAGAAGAAAGATGGAACACAGGCTGAGAATGACAGTTCCAACGATGACAAAATAAAAA  
 ATCTGAGGGTGTGGGGACAAGGAGGAGAAGAAAGAGGCTGAGAAGGAAGCCAAAAGAGCAAGAAG  
 CGGAACAGGAAGCAGAGTGGCGATGACAGCTTCGATGAGGGCAGTGTGTCGAGTCTGAGTCCGAGTCTG  
 AGGTGGCCAGGCCAGGAGGAGAAGGAGGAGGCCGAAGAAAGCACTTAAAGAAAAGGAGAAGCCAAAGA  
 GGAGGAGAAGGAGAAGCCCTAAGGATGCTGCAGGTTGGAGTGAAGCCCGGCCCTTGCATAAGACTTGC  
 TCTCTTTCATGCGCAACATCGCACCAACATTTCAAGGGCAGAGATCATTTCTTTTGTAAACGATACC  
 CAGGCTTTATGCGAGTGGCACTGTGAGGCCAGCCAGAGAGGAGGTTTTTTTCGCCGTGGCTGGGTGAC  
 TTTTGACCGCAGTGTTAACATTAAGGAGATCTGTTGGAACCTGCAGAACATTCGGCTCCGGGAGTGTGAA  
 CTGAGTCCCGGTGTGAACAGAGACTGACCCGTGTCGCGAACATAAATGGCATTACACAGCACAAGC  
 AGATAGTGCCAATGACATCAAGTTGGCAGCAAGCTAATCCACACACTGGATGACAGGACCCAGCTCTG  
 GGCCTCTGAGCCTGGGACGCTCTGTGCCACAAGCCTCCCTCGAAAACCCATCCTGAAGAACATC  
 ACTGACTACCTGATTGAGGAAGTGAAGTGGGAGGAGGAGCTTCTGGGAGCAGTGGGGACCCCTC  
 CTGAGGAGCCTCCAAGGAGGGCAACCCAGCCGAGATCAACGTGGAGAGAGATGAGAAGCTGATCAAGGT  
 CTTGGATAAACTTCTTCTATTTGCGTATTGTGCATTCTCTGGATTATTATAACACCTGTGAGTACCCT  
 AATGAAGACGAGATGCCAACCGCTGTGGCATAATCCACGTTCCGGGGCCCATGCCTCCCAACCGAATTA  
 GTCACGGAGAAGTGTGGAGTGGCAGAAGACATTTGAGGAGAACTGACTCCACTGTTGAGTGTGCGTGA  
 ATCCCTTTCTGAGGAAGAGGCCAGAAGATGGGTGCAAAAGACCCAGAGCAGGAAGTGGAGAAGTTTGTG  
 ACCTCCAACACGCAGGAAGTGGCAAGGATAAGTGGCTATGTCCTCTCAGTGGCAAGAAATCAAGGGCC  
 CGGAGTTTGTGCGCAAGCATATCTTCAATAAGCATGCCGAGAAGATCGAGGAGGTGAAGAAGGAGGTGGC  
 GTTCTTCAATAACTTTCTCACAGACGCCAAGCGCCAGCTTTGCCTGAGATCAAGCCAGCTCAGCCACCT  
 GGCCCTGCCAGATACTCCCCCAGGCCTGACCCAGGACTTCCCTACCCACATCAGACGCCACAGGGCT  
 TGATGCCATATGTCAGCCCCGGCTCCCATCTTGGGCTATGGAGTCCCAACAGGAGGGCTCCATACCC  
 CCATGCTCCATATGGTGGCGCCGTGGAACTATGATGCTTTTCGAGGCCAAGGCGGTTATCCTGGGAAA  
 CCTCGAACAGGATGGTTCGAGGAGACCAAGGGCCATAGTGGAGTATCGGGACCTGGATGCCCCGGATG  
 ATGTTGACTTCTTT

**ACGGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

Protein Sequence: >MG211012 representing BC066831  
 Red=Cloning site Green=Tags(s)

MGDSDDEYDRRRRDKFRERSDYDRSREDRERRRGGDDWNDREWDRGRERRSRGEYRDYDRNRRERFSPPR  
 HELSPPQKRMRRDWEHSSDPYHSGYDMPYAGGGGGPTYGPPQPWGHDPVHIMQHHLVLPQARLGSIAEI  
 DLGVPPPIMKSFKEFLSLDSDVDETEAVKRYNDYKLDFFRRQQMQDFFLAHKDEEWFRRSKYHPDEVGKRR  
 QEARGALQNRLLKVFVLSLMEGWFDNLLLDIDKADAIKMLDAAVIKMEGGTENDLRILEQEEEEEQAGKT  
 GEASKKEEARAGPALGEGERKANDKDEKKEDGKQAEENDSSNDDKTKKSEGDKKEEKKEEAEKEAKKSKK  
 RNRKQSGDSDSFDSESVSESESESEGGQAEEEEKEEAEALKEKEKPKEEKEKPKDAAGLECKPRPLHKTC  
 SLFMRNIAPNISRAEIIISLCKRYPGFMRYALSEPQPERFFRRGWVTFDRSVNIKEICWNLQNIIRLRECE  
 LSPGVNRDLTRVRNINGITQHKQIVRNDIKLAAKLIHTLDDRTQLWASEPGTPPVPTSLPSQNPILKNI  
 TDYLIIEVSAEEEEELGSSGGPPPEPPKEGNPAEINVERDEKLKVLDKLLLYLRIVHSLDYNTCEYP  
 NEDEMPNRCGIIHVRGMPNRIISHGEVLEWQKTFEELTPLL SVRESLSEEAQKMGKRDPEQEVEKFV  
 TSNTQELGKDKWLCPLSGKKFKGPEFVRKHIFNKHAEKIEEVKKEVAFFNNFLTDARPALPEIKPAQPP  
 GPAQILPPGLTPGLPYPHQTPQGLMPYQPRPPIILGYGVP TGGPPYPHAPYGAGRGNYDAFRGQGGYPGK  
 PRNRMVRGDPRAIVEYRDL DAPDDVDF

TRTRPLE - GFP Tag - V

Restriction Sites:

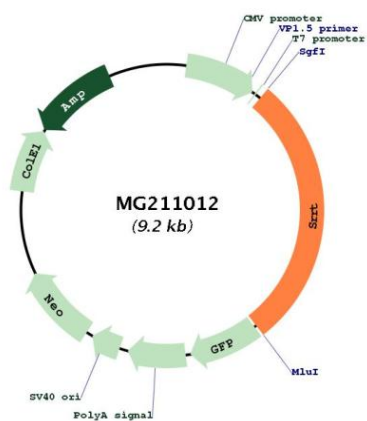
SgfI-MluI

Cloning Scheme:



<b>ACCN:</b>	BC066831
<b>ORF Size:</b>	2606 bp
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC066831</a> , <a href="#">AAH66831</a>
<b>RefSeq Size:</b>	2990 bp
<b>RefSeq ORF:</b>	2606 bp
<b>Locus ID:</b>	83701
<b>Cytogenetics:</b>	5 G2
<b>Gene Summary:</b>	Acts as a mediator between the cap-binding complex (CBC) and the primary microRNAs (miRNAs) processing machinery during cell proliferation. Contributes to the stability and delivery of capped primary miRNA transcripts to the primary miRNA processing complex containing DGCR8 and DROSHA, thereby playing a role in RNA-mediated gene silencing (RNAi) by miRNAs. Binds capped RNAs (m7GpppG-capped RNA); however interaction is probably mediated via its interaction with NCBP1/CBP80 component of the CBC complex. Involved in cell cycle progression at S phase. Does not directly confer arsenite resistance but rather modulates arsenic sensitivity. Independently of its activity on miRNAs, necessary and sufficient to promote neural stem cell self-renewal. Does so by directly binding SOX2 promoter and positively regulating its transcription.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MG211012