

Product datasheet for **RG204319**

ARSA (NM_000487) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ARSA (NM_000487) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ARSA
Synonyms:	ASA; MLD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204319 representing NM_000487
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGGACCGGGTCCCTCCTCTGGCCCTGGCTGCTGGCCTGGCCGTTGCCCGTCCGCCAACATCG
 TGCTGATCTTTGCCGACGACCTCGGCTATGGGGACCTGGGCTGCTATGGGCACCCAGCTTACCACTCC
 CAACCTGGACCAGCTGGCGGGGGAGGGTTCGGTTTACAGACTTCTACGTGCCTGTGTCTCTGTGCACA
 CCCTCTAGGGCCGCCCTCTGACCGGCCGGCTCCCGTTTCGGATGGGCATGTACCCTGGCGTCTGGTGC
 CCAGCTCCCGGGGGGCCCTGCCCTGGAGGAGGTGACCGTGGCCGAAGTCTGGCTGCCGAGGCTACCT
 CACAGGAATGGCCGCAAGTGGCACCTTGGGGTGGGGCTGAGGGGGCTTCTGCCCCCCATCAGGGC
 TTCCATCGATTTCTAGGCATCCCGTACTCCACGACCAGGGCCCTGCCAGAACCTGACCTGCTTCCCGC
 CGGCCACTCCTTGCACGGTGGCTGTGACCAGGGCCTGGTCCCCATCCACTGTTGGCCAACTGTCCGT
 GGAGGCGCAGCCCCCTGGCTGCCGGACTAGAGGCCCGCTACATGGCTTTCGCCATGACCTCATGGCC
 GACGCCACGCGCCAGGATCGCCCCCTTCTCCTGTACTATGCCTCTCACCACCCACTACCTCAGTTCA
 GTGGGCAGAGCTTTCAGAGCGTTCAGGCCGCGGGCCATTTGGGGACTCCCTGATGGAGCTGGATGCAGC
 TGTGGGGACCCTGATGACAGCCATAGGGGACCTGGGGCTGCTTGAAGAGACGCTGGTCACTTCACTGCA
 GACAATGGACCTGAGACCATGCGTATGTCCCGAGGCGGCTGCTCCGGTCTTTCGGGTGTGGAAAGGGAA
 CGACCTACGAGGGCGGTGTCGAGAGCCTGCCTTGGCCTTCTGGCCAGGTCAATCGCTCCCGCGGTGAC
 CCACGAGCTGGCCAGCTCCCTGGACCTGCTGCCTACCTGGCAGCCCTGGCTGGGGCCCCACTGCCAAT
 GTCACCTTGGATGGCTTTCACCTCAGCCCCCTGCTGCTGGGCACAGGCAAGAGCCCTCGGCAGTCTCTCT
 TCTTACCCGTCCTACCCAGAGGCTCTGCCACAGTGATACCACTGCAGACCCTGCCTGCCACGCTCCAGCTCTG
 ACTGCTCATGAGCCCCGCTGCTCTATGACCTGTCCAAGACCCTGGTGAGAACTACAACCTGCTGGGGG
 GTGTGGCCGGGGCCACCCAGAGGTGCTGCAAGCCCTGAAACAGCTTCAGCTGCTCAAGGCCAGTTAGA
 CGCAGCTGTGACCTTCGGCCCCAGCCAGGTGGCCCGGGCGAGGACCCCGCCCTGCAGATCTGCTGCAT
 CCTGGTGCACCCCCGCCAGCTTGTGCCATTGCCAGATCCCCATGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG204319 representing NM_000487
 Red=Cloning site Green=Tags(s)

MGAPRLLLLALAAGLAVARPPNIVLIFADDLGYGDLGCGYHPSSTTPNLDQLAAGGLRFTDFYVPSLCT
 PSRAALLTGRLPVRMGMPVGLVPSSRGGPLEEVTVAEVLAAARGYLTMAGKWHLGVGPEGAFLPPHQG
 FHRFLGIPYSHDQGPCQNLTCFPPATPCDGGCDQGLVPIPLLANLSVEAQPPWLPGLARYMAFAHDLMA
 DAQRQDRPFLLYYASHHHTYPQFSGQSF AERSGRGPF GDSLMELDAAVGTLMTAIGDLGELLETLVIFTA
 DNGPETMRMRSGCSGLLRCKGKTTYEGGVREPALAFWPGHIA PGVTHELASSLDLLPTLAALAGAPLPN
 VTLDGFDLSPLLLGTGKSPRQSLFFYPSYPDEVRGVFAVRSGKYKAHFFTQGSAHSDTTADPACHASSSL
 TAHEPPLLVDLSKDPGENYNLLGGVAGATPEVLQALKQLQLLKAQLDAAVTFGPSQVARGEDPALQICCH
 PGCTPRPACCHCPDPA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI
BamHI *KpnI*
RBS
Kozac
Consensus
SgfI
AscI

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

HindIII
NheI *RsrII*
MluI
NotI
XhoI
GFP Tag

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---

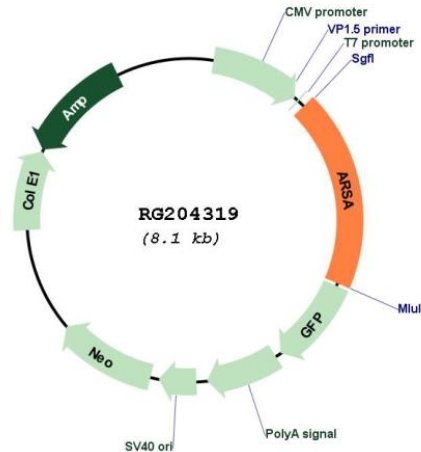
T R T R P L E
M E S D - - -

PmeI
FseI

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - - E E R V Stop

Plasmid Map:



ACCN: NM_000487

ORF Size: 1521 bp

OTI Disclaimer: 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. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_000487.3 , NP_000478.2
RefSeq Size:	2039 bp
RefSeq ORF:	1530 bp
Locus ID:	410
UniProt ID:	P15289
Cytogenetics:	22q13.33
Domains:	Sulfatase
Protein Families:	Druggable Genome
Protein Pathways:	Lysosome, Sphingolipid metabolism
Gene Summary:	The protein encoded by this gene hydrolyzes cerebroside sulfate to cerebroside and sulfate. Defects in this gene lead to metachromatic leucodystrophy (MLD), a progressive demyelination disease which results in a variety of neurological symptoms and ultimately death. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Dec 2010]