

Product datasheet for **RG201568**

Argininosuccinate Lyase (ASL) (NM_001024943) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Argininosuccinate Lyase (ASL) (NM_001024943) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Argininosuccinate Lyase
Synonyms:	ASAL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG201568 representing NM_001024943
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGT
 TCAACGCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCTACAGCAG
 GGGCCTGGAGAAGGCAGGGCTCCTCACCAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
 GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGC
 GCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT
 GGTACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
 AGGACCATGGTGGATCGGGCAGAGGCGGAACGTGATGTTCTCTCCCGGGGTACACCATTTGCAGAGGG
 CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCCGTGGCACTGACCCGAGACTCTGAGCGGCT
 GCTGGAGGTGCGGAAGCGGATCAATGTCTGCCCCTGGGGAGTGGGGCCATTGCAGGCAATCCCCTGGGT
 GTGGACCGAGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTA
 GTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGGC
 CGAGGACCTCATCTCTACTGCACCAAGGAATTGAGTTCGTGCAGCTCTCAGATGCCTACAGCAGGGGA
 AGCAGCCTGATGCCCCAGAAGAAAAACCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGT
 TTGGGCGGTGTGCCGGGCTCCTGATGACCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGA
 GGACAAGGAAGCTGTGTTGAAGTGTGAGACATATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATC
 TCTACGCTGCAGATTCACCAAGAGAATGAGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTG
 CCTATTACCTGGTCCGAAAGGGATGCCATTCCGCCAGGCCACGAGGCCCTCCGGGAAAGCTGTGTTTCAT
 GGCCGAGACCAAGGGGGTCCGCTCAACAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTTC
 TCGGGCGACGTGATCTGCGTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCTGGGCGGCACTG
 CGCGCTCCAGCGTCACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

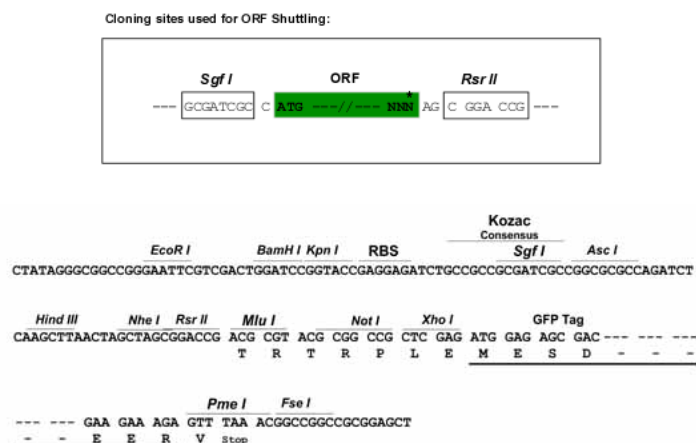
>RG201568 representing NM_001024943
 Red=Cloning site Green=Tags(s)

MASESGKLWGRFVGAVDPIMEKFNASIAYDRHLWEVDVQGSKAYSRGLEKAGLLTKAEMDQILHGLDKV
 AEEWAQGTFLNSNDEDIHTANERRLKELIGATAGKLHTGRSRNDQVVTDLRLWMRQTCSTLSGLLWELI
 RTMVDRAEAERDVLFPGYTHLQRAQPIRWSHWILSHAVALTRDSERLLEVRKRINVLPLGSGAIAGNPLG
 VDRELLRAELNFGAITLNSMDATSERDFVAEFLFWASLCMTHLSRMAEDLILYCTKEFSFVQLSDAYSTG
 SSLMPQKKNPDSLELIRSKAGR VFGRGAGLLMTLKGLPSTYNKDLQEDKEAVFEVSDTMSAVLQVATGVI
 STLQIHQENMGQALSPDMLATDLAYYLVKGMPPFRQAHEASGKAVFMAETKGVALNQLSLQELQTSPLF
 SGDVICVWDYGHSEYQYALGGTARSSVDWQIRQVRALLQAQQA

SGPTRRRLE – GFP Tag – V

Restriction Sites:

SgfI-RsrII

Cloning Scheme:


ACCN: NM_001024943

ORF Size: 1392 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:

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_001024943.2](#)

RefSeq Size: 2061 bp

RefSeq ORF: 1395 bp

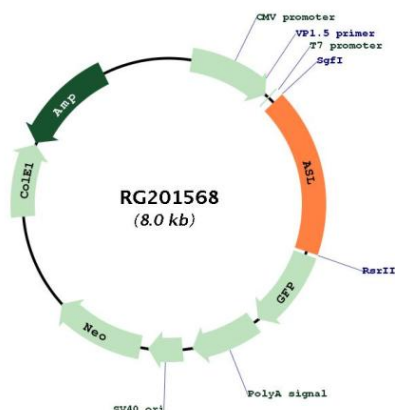
Locus ID: 435

UniProt ID: [P04424](#)

Cytogenetics: 7q11.21

Protein Pathways:	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways
Gene Summary:	This gene encodes a member of the lyase 1 family. The encoded protein forms a cytosolic homotetramer and primarily catalyzes the reversible hydrolytic cleavage of argininosuccinate into arginine and fumarate, an essential step in the liver in detoxifying ammonia via the urea cycle. Mutations in this gene result in the autosomal recessive disorder argininosuccinic aciduria, or argininosuccinic acid lyase deficiency. A nontranscribed pseudogene is also located on the long arm of chromosome 22. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG201568