

Product datasheet for **RG217587**

Argininosuccinate Lyase (ASL) (NM_001024944) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Argininosuccinate Lyase (ASL) (NM_001024944) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ASL
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:

>RG217587 representing NM_001024944
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGT
 TCAACCGCTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCTACAGCAG
 GGGCCTGGAGAAGGCAGGGCTCCTACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
 GCTGAGGAGTGGGCCAGGGCACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGC
 GCCGCTGAAGGAGCTCATTGGTGAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT
 GGTACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
 AGGACCATGGTGGATCGGGCAGAGGCGGAACGTGATGTTCTTCCCGGGGTACACCCATTTGCAGAGGG
 CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCCGTGGCACTGACCCGAGACTCTGAGCGGCT
 GCTGGAGGTGCGGAAGCGGATCAATGTCCTGCCCTGGGGAGTGGGGCCATTGCAGGCAATCCCCTGGGT
 GTGGACCGAGAGCTGCTCCGAGCAGAAGTCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTA
 GTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGGC
 CGAGGACCTCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTACAGCAGGGGA
 AGCAGCCTGATGCCCCAGAAGAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGT
 TTGGGCGGGAGGACAAGGAAGCTGTGTTGAAGTGCAGACACTATGAGTGCCGTGCTCCAGGTGGCCAC
 TGGCGTCATCTCTACGCTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCC
 ACTGACCTTGCCTATTACCTGGTCCGAAAGGGATGCCATTCCGCCAGGCCACGAGGCCCTCCGGGAAAG
 CTGTGTTTATGGCCGAGACCAAGGGGGTCCGCCCAACCAGCTGTCACCTGCAGGAGCTGCAGACCATCAG
 CCCCTGTTCTCGGGCGACGTGATCTGCGTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCTG
 GCGCGCACTGCGCGCTCCAGCGTCACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGG
 CC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG217587 representing NM_001024944
 Red=Cloning site Green=Tags(s)

MASESGKLWGGRFVGAVDPIMEKFNASIAADRHLWEVDVQGSKAYSRLGKAGLLTKAEMDQILHGLDKV
 AEEWAQGTFLKNSNDEDIHTANERRLKEIGATAGKLHTGRSRNDQVVDLRLWMRQTCSTLSGLLWELI
 RTMVDRAEAERDVLFPGYTHLQRAQPIRWSHWILSHAVALTRDSERLLEVRKRINVLPLGSGAIAGNPLG
 VDRELLRAELNFGAITLNSMDATSERDFVAEFLFWASLCMTHLSRMAEDLILYCTKEFSFVQLSDAYSTG
 SSLMPQKKNPDSLELIRSKAGRVPFGREDKEAVFEVSDTMSAVLQVATGVI STLQIHQENMGQALSPDMLA
 TDLAYYLVRKMPFRQAHEASGKAVFMAETKGVALNQLSLQELQTI SPLFSGDVICWWDYGHVSVEQYGAL
 GGTARSSVDWQIRQVRALLQAQQA

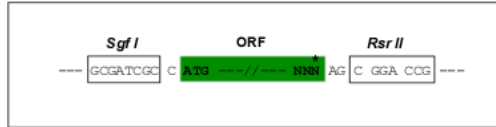
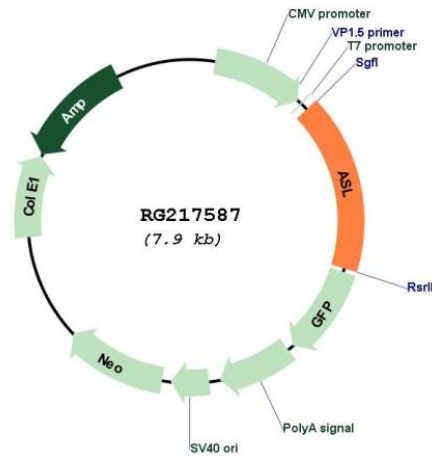
SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:


Plasmid Map:

ACCN: NM_001024944

ORF Size: 1332 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_001024944.2
RefSeq Size:	2001 bp
RefSeq ORF:	1335 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]