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Product datasheet for RG217708

Argininosuccinate Lyase (ASL) (NM_001024946) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Argininosuccinate Lyase (ASL) (NM_001024946) 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)

ORF Nucleotide Sequence:

>RG217708 representing NM_001024946
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCTCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGT
TCAACGCGTCCATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAG
GGGCCTGGAGAAGGCAGGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTG
GCTGAGGAGTGGGCCCAGGGCACCTTCAAACTGAACTCCAATGATGAGGACATCCACACAGCCAATGAGC
GCCGCCTGAAGGAGCTCATTGGTGCAACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGT
GGTCACAGACCTCAGGCTGTGGATGCGGCAGACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATT
AGGACCATGGTGGATCGGGCAGAGGCGGAACGTGATGTTCTCTTCCCGGGGTACACCCATTTGCAGAGGG
CCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGTGGGGCCATTGCAGGCAATCCCCTGGGTGTGGACCG
AGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTCAACAGCATGGATGCCACTAGTGAGCGG
GACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCATCTCAGCAGGATGGCCGAGGACC
TCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTACAGCACGGGAAGCAGCCT
GATGCCCCAGAAGAAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGTGTGTTTGGGCGG
TGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGAGGACAAGG
AAGCTGTGTTTGAAGTGTCAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATCTCTACGCT
GCAGATTCACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCTATTAC
CTGGTCCGCAAAGGGATGCCATTCCGCCAGGCCCACGAGGCCTCCGGGAAAGCTGTGTTCATGGCCGAGA
CCAAGGGGGTCGCCCTCAACCAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGA
CGTGATCTGCGTGTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCC
AGCGTCGACTGGCAGATCCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

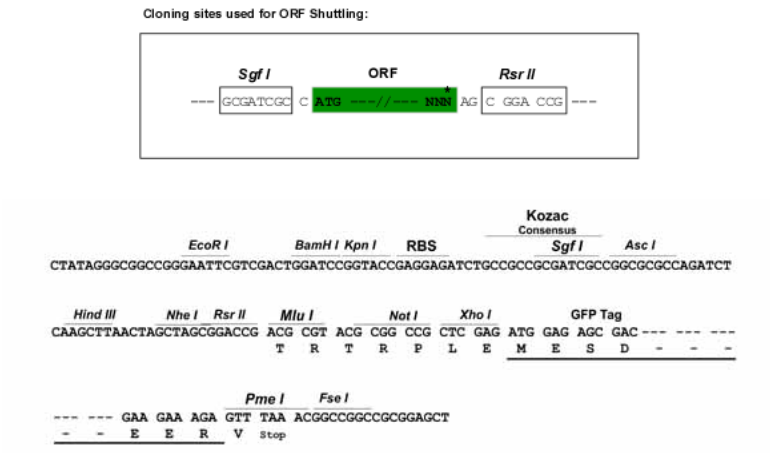
>RG217708 representing NM_001024946
Red=Cloning site Green=Tags(s)

MASESGKLWGGRFVGAVDPIMEKFNASIAYDRHLWEVDVQGSKAYSRGLEKAGLLTKAEMDQILHGLDKV
AEEWAQGTFKLNSNDEDIHTANERRLKELIGATAGKLHTGRSRNDQVVTDLRLWMRQTCSTLSGLLWELI
RTMVDRAEAERDVLFPGYTHLQRAQPIRWSHWILSGAIAGNPLGVDRELLRAELNFGAITLNSMDATSER
DFVAEFLFWASLCMTHLSRMAEDLILYCTKEFSFVQLSDAYSTGSSLMPQKKNPDSLELIRSKAGRVFGR
CAGLLMTLKGLPSTYNKDLQEDKEAVFEVSDTMSAVLQVATGVISTLQIHQENMGQALSPDMLATDLAYY
LVRKGMPFRQAHEASGKAVFMAETKGVALNQLSLQELQTISPLFSGDVICVWDYGHSVEQYGALGGTARS
SVDWQIRQVRALLQAQQA

SGPTRTRRLE – GFP Tag – V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_001024946

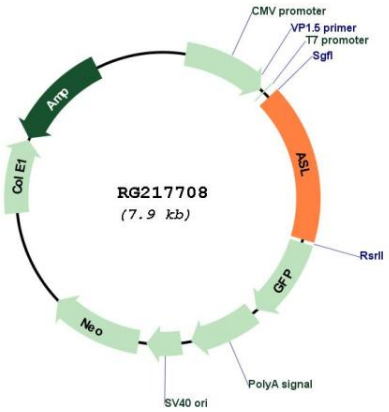
ORF Size: 1314 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_001024946.2
RefSeq Size:	1983 bp
RefSeq ORF:	1317 bp
Locus ID:	435
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 RG217708