

## Product datasheet for **SC124908**

### ASS1 (NM\_054012) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ASS1 (NM_054012) Human Untagged Clone
Tag:	Tag Free
Symbol:	ASS1
Synonyms:	ASS; CTLN1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC124908 sequence for NM_054012 edited (data generated by NextGen Sequencing)

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ATGTCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGCCTGGACACCTCGTGCATC
CTCGTGTGGCTGAAGGAACAAGGCTATGACGTCATTGCCTATCTGGCCAACATTGGCCAG
AAGGAAGACTTCGAGGAAGCCAGGAAGAAGGCACTGAAGCTTGGGGCCAAAAAGGTGTTT
ATTGAGGATGTCAGCAGGGAGTTTGTGGAGGAGTTCATCTGGCCGGCCATCCAGTCCAGC
GCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTGCCAGGCCCTGCATCGCCCGC
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AAGGGGAACGATCAGGTCGGTTTGTAGCTCAGCTGCTACTCACTGGCCCCCAGATAAAG
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ATGGAGTACGCAAAGCAACACGGGATCCCATCCCGGTCCTCCAAGAACCCTGGAGC
ATGGATGAGAACCCTATGCACATCAGCTACGAGGCTGGAATCCTGGAGAACCCCAAGAAC
CAAGCGCCTCCAGGTCTCTACACGAAGACCCAGGACCCAGCCAAAGCCCCAACACCCCT
GACATTCTCGAGATCGAGTTCAAAAAAGGGTCCCTGTGAAGGTGACCAACGTCAAGGAT
GGCACCACCCACCAGACCTCCTTGGAGCTTTCATGTACTGAACGAAGTCGCGGGCAAG
CATGGCGTGGGCCGATTGACATCGTGGAGAACCGCTTATTGGAATGAAGTCCCAGGTT
ATCTACGAGACCCAGCAGGCACCATCCTTTACCATGCTCATTAGACATCGAGGCCCTC
ACCATGGACCGGAAAGTGCGCAAAATCAACAAGGCCTGGGCTTGAATTTGCTGAGCTG
GTGTATACCGGTTTCTGGCACAGCCCTGAGTGTGAATTTGTCCGCCACTGCATCGCCAAG
TCCCAGGAGCGAGTGGAAGGGAAAAGTGCAGGTGTCCTCCTCAAGGGCCAGGTGTACATC
CTCGGCCGGGAGTCCCCACTGTCTCTACAATGAGGAGCTGGTGAAGCATGAACGTGCAG
GGTGATTATGAGCCAACCTGATGCCACCGGTTTCATCAACATCAATTCCTCAGGCTGAAG
GAATATCATCGTCTCCAGAGCAAGGTCCTGCAAAATAG

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Clone variation with respect to NM\_054012.3



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_054012 unedited</p> <pre> TCACAATTTNGTAATACGACTCACTATAGGGCGGCCGGAATCGGCACGAGGCCACCGCT GCCCGAGCCCGACGCTATGTCCAGCAAAGGCTCCGTGGTTCTGGCCTACAGTGGCGGCCT GGACACCTCGTGCATCCTCGTGTGGCTGAAGGAACAAGGCTATGACGTCATTGCCTATCT GGCCAACATTGGCCAGAAGGAAGACTTCGAGGAAGCCAGGAAGAAGGCACTGAAGCTTGG GGCCAAAAAGGTGTTTCATTGAGGATGTCAGCAGGGAGTTTGTGGAGGAGTTCATCTGGCC GGCCATCCAGTCCAGCGCACTGTATGAGGACCGCTACCTCCTGGGCACCTCTCTTGCCAG GCCCTGCATCGCCCGCAAACAAGTGGAAATCGCCAGCGGGAGGGGCCAAGTATGTGTC CCACGGCGCCACAGGAAAGGGGAACGATCAGGTCGGTTTGAGCTCAGCTGCTACTCACT GGCCCCCAGATAAAGGTCATTGCTCCCTGGAGGATGCCTGAATTCTACAACCGTTTCAA GGGCCGCAATGACCTGATGGAGTACGCAAAGCAACACGGGATTCCCATCCCGGTCACTCC CAAGAACCCGTGGAGCATGGATGAGAACCTCATGCACATCAGCTACGAGGCTGGAATCCT GGAGAACCCCAAGAACCAAGCGCTCCAGGTCTCTACACGAAGACCCAGGACCCAGCCAA AGCCCCAACACCCCTGACATTCTCGAGATCGAGTTCAAAAAAGGGTCCCTGTGANAGT GACCAACGTCAAGGATGGCACCACCCAGACCTCCTTGAGCTCTTCATGTACCTGAA CGAAGTCGCGGGCAAGCATGGCGTGGGCCGATTGACATCGTGGAGAACCCTTTCATGG NAATGAGTCCCGAGTATCTACGAGACCCAGCAGGCACATCCTTTCATGTCTATTAGAC TCGAGCCTTACCA </pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_054012 unedited</p> <pre> CTTTGGTACGTAGCCGATACTAGGTTTCAGTTTTATTTTTTTTTTTTTTTTTTTTTTTTCT CTTTTAATTGTCATTTTTATAGTCCCCACCGCAGCTGCCCCCCACCCTTCCCTTCGATG ACAACGTTTGCAGGCTTCAGGGGACCAGGGAACAAGCTGGGGCCTGGCAGCCCACTA CGCTGCCAGCCGGGAGACAAGTCACAATTAATAATCACAACAATTAGCGCCTGTA CTTGGGGGATCTGCAAAATTGAGGAGGCCCCAGCTCCTCATTGTACACGGGTCTATTTGGC AGTGACCTTGCTCTGGAGACGATGATATTCCTTCAGCCTGAGGGAATTGATGTTGATGAA CCCGGTGGCATCAGTTGGCTCATAATCACCTGCACGTTTCATGCTCACCAGCTCCTCATT GTAGAGAGACAGTGGGGACTCCCGGCCGAGGATGTACACCTGGCCCTTGAGGACGGACAC CTGCACTTTCCCTTCCACTCGCTCCTGGGACTTGGCGATGCAGTGGCGGACAAATTCACA CTCAGGGCTGTGCCAGAAACCGGTATACACCAGCTCAGCAAATTTCAAGCCAGGCCCTTG TTTGATTTTGCACACTTCCCGGTCCATGGTGAAGCCTCGATGTCTAAATGAGCATGGTA AAGGATGGTGCCTGCTGGGGTCTCGTAGATACCTCGGGACTTCATTCCAATGAAGCGGTT CTCCACGATGTCAATACGGCCACGCCATGCTTGCCCGGACTTCGTTTCAGGTACATGAA GAGCTCCAAGGAGTCTGGTGGTGGTGCATCCTTGACGTTGGTACCTTCCAGGGACCC CTTTTTTTGACTCGATCTCNAGAATGTCAGGNGTGTNNGGGGCTTTGGCTGGGTCTGG GTCTTCGTGTANAGACCTGGAGGCGCTTGGGTCTNGC </pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_054012
<b>Insert Size:</b>	1500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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="#">NM_054012.2</a> , <a href="#">NP_446464.1</a>
<b>RefSeq Size:</b>	1631 bp
<b>RefSeq ORF:</b>	1239 bp
<b>Locus ID:</b>	445
<b>UniProt ID:</b>	<a href="#">P00966</a>
<b>Cytogenetics:</b>	9q34.11
<b>Domains:</b>	Arginosuc_synth
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Alanine, aspartate and glutamate metabolism, Arginine and proline metabolism, Metabolic pathways
<b>Gene Summary:</b>	<p>The protein encoded by this gene catalyzes the penultimate step of the arginine biosynthetic pathway. There are approximately 10 to 14 copies of this gene including the pseudogenes scattered across the human genome, among which the one located on chromosome 9 appears to be the only functional gene for argininosuccinate synthetase. Mutations in the chromosome 9 copy of this gene cause citrullinemia. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Aug 2012]</p> <p>Transcript Variant: This variant (2) lacks an exon in the 5' UTR, compared to variant 1. Variants 1 and 2 encode the same protein.</p>