

## Product datasheet for **RG226789**

### ASAH2 (NM\_001143974) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ASAH2 (NM_001143974) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ASAH2
Synonyms:	BCDase; HNAC1; LCDase; N-CDase; NCDase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226789 representing NM\_001143974  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCAAACGCACCTTCTCTAACTTGGAGACATTCTGATTTTCCTCCTTGTAAATGATGAGTGCCATCA  
 CAGTGGCCCTTCTCAGCCTCTTGTTTATCACCAGTGGGACCATTGAAAACCACAAAGATTTAGGAGGCCA  
 TTTTTTTTCAACCACCCAAAGCCCTCCAGCCACCCAGGGCTCCACAGCTGCCCAACGCTCCACAGCCACC  
 CAGCATTCCACAGCCACCCAGAGCTCCACAGCCACTCAAACCTTCTCCAGTGCCTTTAACCCAGAGTCTC  
 CTCTATTTCAGAACTTCAGTGGCTACCATATTGGTGTGGACGAGCTGACTGCACAGGACAAGTAGCAGA  
 TATCAATTTGATGGGCTATGGCAAATCCGGCCAGAATGCACAGGGCATCCTACCAGGCTATACAGTCGT  
 GCCTTCATCATGGCAGAACCTGATGGGTCCAATCGAACAGTGTGTGTCAGCATCGACATAGGCATGGTAT  
 CACAAAGGCTCAGGCTGGAGTCTGAACAGACTGCAGAGTAAATATGGCTCCCTGTACAGAAGAGATAA  
 TGTTCATCTGAGTGGCACTCACACTCATTCCAGGTCTGCAGGATATTTCCAGTATACCGTGTGTGTAATT  
 GCCAGTGAAGGATTTAGCAATCAAACCTTTTCAGCACATGGTCACTGGTATCTTGAAGAGCATTGACATAG  
 CACACACAAATATGAAACCAGGCAAAATCTTCATCAATAAAGGAAATGTGGATGGTGTGCAGATCAACAG  
 AAGTCCGTATTCTTACCTTCAAATCCGCAGTCAGAGAGAGCAAGGTATTCTTCAAATACAGACAAGGAA  
 ATGATAGTTTTGAAAATGGTAGATTTGAATGGAGATGACTTGGGCCTTATCAGCTGGTTTGCCATCCACC  
 CGGTCCAGCATGAACAACAGTAACCATCTTGAACAGTGACAATGTGGGCTATGCATCTTACCTGCTTGA  
 GCAAGAGAAGAACAAGGATATCTACCTGGACAGGGGCCATTTGTAGCAGCCTTTGCTTCATCAAACCTA  
 GGAGATGTGTCCCCAACATTCTTGGACCAGTTGCATCAACACAGGAGAGTCTGTGATAACGCCAATA  
 TGCATGTCTCCATTGGTGGCCTAGCATGTGCATTGCTAAGGGACCTGGACAGGATATGTTTGACAGCAG  
 ACAAAATATAGGACGGGCCATGTATCAGAGAGCAAAGTCAAAAACATGTAACCAGCATTGGGCTACAGT  
 TTTGCAGCTGGCACTATTGATGGAGTTGGAGGCCCTCAATTTTACACAGGGGAAAAACAAGGGGATCCAT  
 TTTGGGACACCATTCCGGACCAGATCCTGGGAAAGCCATCTGAAGAAATTAAGAATGTCATAAACCAAAA  
 GCCCATCTTCTTACACCCGGAGAACTATCAAACCTCACCCCTGGCATCCAGACATTGTTGATGTTTCAG  
 ATTATTACCTTGGGTCTTGGCCATAACTGCCATCCCCGGGAGTTTACGACCATGTCTGGACGAAGAC  
 TTCGAGAGGCAGTTCAAGCAGAATTTGCATCTCATGGGATGCAGAACATGACTGTTGTTATTTCCAGTCT  
 ATGCAACGTCTATACACATTACATTACCCTTATGAAGAATACCAGGCTCAGCGATATGAGGCAGCATCG  
 ACAATTTATGGACCGCACACATTATCTGCTTACATTCCAGCTCTTCAAGAACTTGTCTAAGGCTATTGCTA  
 CGGACACGGTAGCCAACCTGAGCAGAGGTCCAGAACCTCCCTTTTTCAAACAATTAATAGTTCCTAAT  
 TCCTAGTATTGTGGATAGAGCACAAAAGGCAGAACTTTCGGGGATGTCCTGCAGCCAGCAAAACCTGAA  
 TACAGAGTGGGGGAAGTTGCTGAAGTTATTTGTAGGTGCTAACCCGAAGAATTCAGTACAAAACCAGA  
 CCCATCAGACCTTCTCACTGTGGAGAAATATGAGGCTACTTCAACATCGTGGCAGATAGTGTGTAATGA  
 TGCTCTCTGGGAGACTCGTTTTTATTGGCACAAGGACTCCTGGGTCTGAGTAATGCAACAGTGGAAATGG  
 CATATTCAGACACTGCCAGCCTGGAATCTACAGAATAAGATATTTTGGACACAATCGGAAGCAGGACA  
 TTCTGAAGCCTGCTGTCATACTTTCATTTGAAGGCACTTCCCGGCTTTTGAAGTTGTAACCTATT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG226789 representing NM\_001143974  
 Red=Cloning site Green=Tags(s)

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MAKRTFSNLETFLIFLLVMSAITVALLSLLFITSGTIENHKDLGGHFFSTTQSPPATQGSTAAQRSTAT
QHSTATQSSSTATQTSVPVLTPE SPLFQNFSGYHIGVGRADCTGQVADINLMGYGKSGQNAQGILTRLYSR
AFIMAEPDGSNRTVFVSDIDIGMVSQRLRLEVLNRLQSKYGSLYRRDNVILSGTHTHSGPAGYFYQYTVFVI
ASEGFSNQTFQHMTGILKSIDIAHTNMKPGKIFINKGNVDGVQINRSPYSYLQNPQSERARYSSNTDKE
MIVLKMVDLNGDDLGLISWFAIHPVSMNNSNHLVNSDNVGYASYLLEQEKNGKGYLPGQGPVAAFSSNL
GDVSPNILGPRCINTGESCDNANSTCPIGGPSMCIAGKPGQDMFDSTQIIGRAMYQRAKSKTCKPALGYS
FAAGTIDVGVGLNFTQGKTEGDPFWDTIRDQILGKPSEEIKECHKPKPILLHTGELSKPHPWHPDIVDVQ
IITLGLSLAITAIPGEFTTMSGRRLREAVQAEFASHGMQNMTVVISGLCNVYTHYITTYEEYQAQRYEAS
TIYGPHTLSAYIQLFRNLAKAIATDTVANLSRGPEPPFFKQLIVPLIPSIVDRAPKGRTFGDVLPKAPPE
YRVGEVAEIVFVGANPKNSVQNQTHQFTLVEKYEATSTSWQIVCNDASWETRFYWHKGLLGLSNATVEV
HIPDTAQPGIYRIRYFGHNRKQDILKPAVILSFEGTSPAFAFEVVTI
  
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TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:

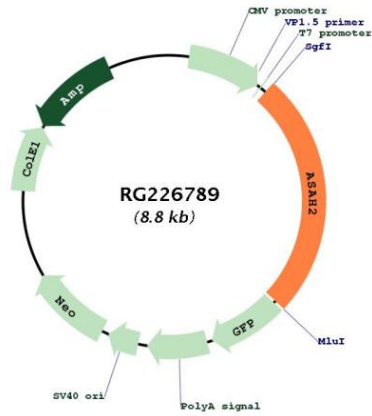


**ACCN:** NM\_001143974

**ORF Size:** 2235 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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_001143974.2</a>
<b>RefSeq Size:</b>	2327 bp
<b>RefSeq ORF:</b>	2238 bp
<b>Locus ID:</b>	56624
<b>UniProt ID:</b>	<a href="#">Q9NR71</a>
<b>Cytogenetics:</b>	10q11.23
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Sphingolipid metabolism
<b>Gene Summary:</b>	<p>Ceramidases (EC 3.5.1.23), such as ASAH2, catalyze hydrolysis of the N-acyl linkage of ceramide, a second messenger in a variety of cellular events, to produce sphingosine. Sphingosine exerts both mitogenic and apoptosis-inducing activities, and its phosphorylated form functions as an intra- and intercellular second messenger (see MIM 603730) (Mitsutake et al., 2001 [PubMed 11328816]).[supplied by OMIM, Mar 2008]</p>

Product images:



Circular map for RG226789