

Product datasheet for **MC221379**

Asah2 (NM_018830) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Asah2 (NM_018830) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Asah2
Synonyms:	A1585898
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC221379 representing NM_018830
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAAAGCGAACCTTCTCCACCTTGGAGGCATTCTCATTTTCTTCTGGTAATAATGACAGTCATCA
 CAGTGGCCCTTCTCACCCTCTTGTGGTTACCAGTGGGACCATTGAAAACCACAAAGATTCAGGAAATCA
 CTGGTTTTCAACCACTCTGGGCTCCACGACAACCCAGCCCTCAATTACACAGACTCCAACTCCCT
 TCATTTCCGGAACCTCAGTGGCTACTACATTGGCGTTGGGAGAGCAGATTGCACAGGACAAGTGTGAGATA
 TCAATTTGATGGGCTATGGCAAAAATGGCCAGAATGCACGGGTCTCTCACCAGGCTGTTGAGCCGTG
 TTTTATCTGGCGGATCCAGATGGGTCAAATCGAATGGCATTGTGAGCGTGGAACTATGTATGATTTCC
 CAACGACTGAGGTTGGAGGCTCTGAAGAGACTAGAGAGTAAATATGGCTCTGTATCGAAGAGACAATG
 TTATCCTGAGTGCATTACACACACTCTGGCCAGCAGGGTTTTTCCAATATACACTCTATATACTCGC
 CAGCGAGGATTACGCAACCGGACCTTTAGTACATAGTCTCTGGGATCATGAAGAGCATTGATATAGCT
 CACACAAATCTTAAACCAGGCAAAATCTTTATCAACAAAGGAAATGTTGCTAATGTGCAGATCAACCGAA
 GCCCTCTCTTACCTTCTGAATCCACAGTCAGAGAGAGCAAGGTATTCTTCAAACACAGACAAGGAAAT
 GCTGGTCTTGAACCTGGTGGATTGAATGGAGAAGACTGGGTCTTATCAGCTGGTTGGCATCCACCC
 GTGAGCATGAACAATAGCAACCACTTTGTGAATAGTGACAATAGGGCTATGCGGCTTACCTTTTGGAGC
 AAGAAAAGAACAAGGCTATCTGCCTGGACAGGGACCGTTGTAGCAGGCTTGTTCATCAAATCTCGG
 AGACGTGCACCCAACATTTTGGCCCGCATTGTGTCAACACAGGGGAGTCTGTGACAACGACAAGAGC
 ACCTGTCCCAACGGTGGGCTAGCATGTGCATGGCCAGCGGACCTGGACAAGACATGTTTGGAGACAC
 ACATTATAGGACGGATCATCTATCAGAAGGCCAAGGAGCTGTATGCCTCTGCCTCCAGGAGGTGACCGG
 CCCAGTGTTCAGCTCACCCAGTGGGTGAACATGACAGATGTGAGCGTCCAGCTCAATGCCACACACACA
 GTGAAGACGTGTAACCTGCCCTGGGCTACAGTTTTGCCGAGGACAAATTGATGGAGTTTCGGGCTCA
 ATATTACACAGGGAACACGGAAGGGATCCATTCTGGGACACTCTCGGGACCAGCTCTTGGGAAAACC
 ATCTGAAGAGATTGTAGAGTGTGAGAAACCCAAACCAATCCTGCTTACAGTGGAGAGCTGACGATACCA
 CATCCTTGGCAACCAGATATTGTTGATGTTGAGATTGTTACCGTTGGGCTCTTGGCCATAGCTGCTATCC
 CTGGGGAATTAACAACCATGTCCGGACGAAGATTCGTGAGGCAATTAAGAAAGAAATTTGCACTTTATGG
 GATGAAGGATATGACCGTTGTTATCGCAGGTCTAAGCAATGTTTATACACATTACATTACCACATATGAA
 GAATACCAGGCTCAGCGGTACGAGGCAGCATCTACAATCTATGGACCACACACCCTGTCTGCATACATCC
 AACTCTTCAGAGACCTTGTCTAAGCAATGCTACGGACACAGTAGCCAACATGAGCAGTGGTCCCGAGCC
 TCCATTCTTCAAATCTAATAGCTTCACTTATTCCTAATATTGCGGATAGAGCACAATTGGCAAACAT
 TTTGGGATGTCTTGCAGCCAGCAAACTGAATACAGAGTGGGAGAAGTGGTTGAAGTTATATTTGTAG
 GCGCTAACCCAAAGAATTCAGCAGAGAACCAGACCCATCAAACCTTCTCACTGTGGAGAAATACGAGGA
 CTCTGTAGCTGACTGGCAGATAATGTATAACGATGCCTCTGGGAGACGAGGTTTTATTGGCACAAGGA
 ATACTGGGTCTGAGCAATGCAACAATACTGGCATATCCAGATACTGCCTACCTGGAATCTACAGAA
 TAAGATATTTGGACACAATCGGAAGCAGGAACCTCTGAAACCCGCTGTACTACTAGCATTGGAAGGAAT
 TTCTTCTCTTTTGAAGTTGTCACTACT**TAG**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_018830
Insert Size: 2271 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](#)

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_018830.1](#), [NP_061300.1](#)

RefSeq Size: 4835 bp

RefSeq ORF: 2271 bp

Locus ID: 54447

UniProt ID: [Q9JHE3](#)

Cytogenetics: 19 C1

Gene Summary: Plasma membrane ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at neutral pH (PubMed:10753931, PubMed:10652340, PubMed:16380386). Ceramides, sphingosine, and its phosphorylated form sphingosine-1-phosphate are bioactive lipids that mediate cellular signaling pathways regulating several biological processes including cell proliferation, apoptosis and differentiation (PubMed:14557071). Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine (PubMed:10652340, PubMed:21613224). Together with sphingomyelinase, participates in the production of sphingosine and sphingosine-1-phosphate from the degradation of sphingomyelin, a sphingolipid enriched in the plasma membrane of cells (PubMed:16126722). Also participates in the hydrolysis of ceramides from the extracellular milieu allowing the production of sphingosine-1-phosphate inside and outside cells (PubMed:16126722). This is the case for instance with the digestion of dietary sphingolipids in the intestinal tract (PubMed:16380386).[UniProtKB/Swiss-Prot Function]