

## Product datasheet for RN215418

### Asah1 (NM\_053407) Rat Untagged Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Asah1 (NM\_053407) Rat Untagged Clone  
 Tag: Tag Free  
 Symbol: Asah1  
 Synonyms: Asah  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 Fully Sequenced ORF: >RN215418 representing NM\_053407  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCTGGGCCGTAGTCTCCTCACCTGGGTCTGGCCGGCTGTCACCTGCGCCAGGCACAGCAAGTGC  
 CACCGTGGACAGAAGATTGCAGAAAATCAACTTATCCTCTTCTGGACCAACCTATAGAGGACCAGTTCC  
 GTGGTACACCATAAATCTTGATTTACCACCCTACAAGAGATGGCATGAATTATTGGCTCACAGGCACCT  
 GTGTTGAGAACTTAGTGAATCCATCTCGAATTTAGTGAATGCATTTGTGCCAAGTGGAAAAATATGC  
 AGATGGTGGATGAAAAGTTGCCTGGTCTGATTGGCAGCATTCTGGCCCTTTTGGAGAGGAAATGAGGGG  
 GATTGCAGATGTTACTGGGATTCCTCTAGGAGAGATTATTTCAATCAACATTTTCTATGAACTGTTCCACC  
 ATGTGTACATCGATCATAAAGTGAAGATGGAAAAGGTCAATTTACTACATGGAAAGAAACATGGATTTGGAA  
 TATTTCTGGGTGGAACATTAACAACAACACTTGGGTGGTACAGAGAATTAAGCCTTTAACAGTGAA  
 TTTGGACTCCAGAGGAACAATAAGACTGTGTTCAAGGCTACAAGTTTCGCTGGATACGTGGGCATGTTG  
 ACAGGATTCAAACCAGGACTGTTAAGTCTTACTGAATGAACGTTTCAGTTTAAATGGTGTATCTGG  
 GTATCCTAGAATGGATGTTTGGAAAGAAAATGCCCAATGGGTAGGTTTATCACTAGATCAGTTCTGGA  
 AAATAGCACAAGTTATGAAGAAGCCAAGAAATATATTGACCAAGCAAGATAACGGCCCCAGCATATTTT  
 ATCCTGGGAGGCAACCAGTCTGGAGAAGTTGTGTGATTACACGAGAAAAGAAAAGAGTCTTTAGACGTCT  
 ATGAACTTGATCCTAAGCATGGCAGATGGTACGTGGTACAAACCAATTATGACCGGTGGAAAAACACCTT  
 GTTTCTTGATGACCGCAGAACACCTGCGAAGAAGTGTCTAAATCACACGACACAGAAGAATCTGTCAAT  
 GCTACCATCTATGATGTTCTATCAACAAAACCTGTCTCAACAAGCTGACTGTATTCACAACCTTGATAG  
 ATGTCACCAAAGATCAATTTGAAAGCCACCTTCGAGATTGCCAGACCCTTGATAGGCTGGTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI



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<b>ACCN:</b>	NM_053407
<b>Insert Size:</b>	1185 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>	<u><a href="#">NM_053407.3</a></u> , <u><a href="#">NP_445859.2</a></u>
<b>RefSeq Size:</b>	2436 bp
<b>RefSeq ORF:</b>	1185 bp
<b>Locus ID:</b>	84431
<b>UniProt ID:</b>	<u><a href="#">Q6P7S1</a></u>
<b>Cytogenetics:</b>	16q12.1
<b>Gene Summary:</b>	Lysosomal ceramidase that hydrolyzes sphingolipid ceramides into sphingosine and free fatty acids at acidic pH (By similarity). 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 (By similarity). Has a higher catalytic efficiency towards C12-ceramides versus other ceramides (By similarity). Also catalyzes the reverse reaction allowing the synthesis of ceramides from fatty acids and sphingosine (By similarity). For the reverse synthetic reaction, the natural sphingosine D-erythro isomer is more efficiently utilized as a substrate compared to D-erythro-dihydrosphingosine and D-erythro-phytosphingosine, while the fatty acids with chain lengths of 12 or 14 carbons are the most efficiently used (By similarity). Has also an N-acylethanolamine hydrolase activity (By similarity). By regulating the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes (By similarity). Also indirectly regulates tumor necrosis factor/TNF-induced apoptosis (By similarity). By regulating the intracellular balance between ceramides and sphingosine, in adrenocortical cells, probably also acts as a regulator of steroidogenesis (By similarity).[UniProtKB/Swiss-Prot Function]