

Product datasheet for **MG224900**

Asah2 (NM_018830) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Asah2 (NM_018830) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Asah2
Synonyms:	A1585898
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>MG224900 representing NM_018830
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

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 CAGTGGCCCTTCTCACCTCTTGTGGTTACCAGTGGGACCATTGAAAACCACAAAGATTAGGAAATCA
 CTGGTTTTCAACCACTCTGGGCTCCACGACAACCCAGCCCTCAATTACACAGACTCCAACTCCCT
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 TTCTCCTTTTGAAGTTGCTCACTACT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG224900 representing NM_018830
 Red=Cloning site Green=Tags(s)

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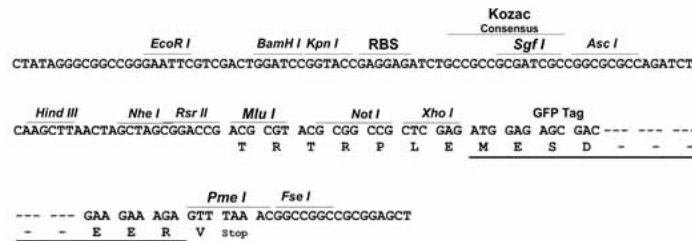
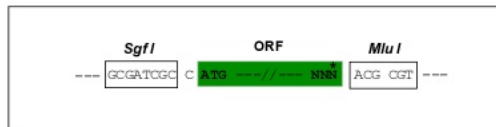
TRTRPLE - GFP Tag - V

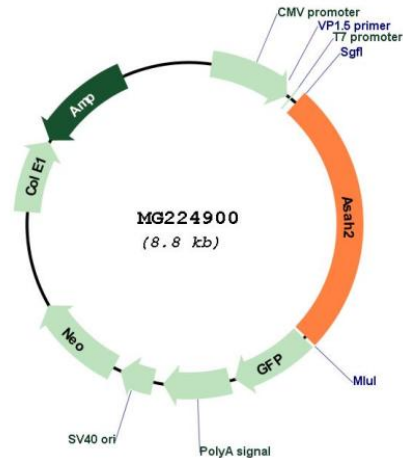
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_018830

ORF Size: 2268 bp

OTI Disclaimer: 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_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]