

Product datasheet for **MG202750**

Asah3l (BC059819) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Asah3l (BC059819) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Asah3l
Synonyms:	CRG-L1, Acer2, maCER2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG202750 representing BC059819 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCGCCCCGCACTGGTGGGACCACCTGCGGGCTGGCAGTTCGGAGGTGGATTGGTGCAGGACAAC
ACACTATCGTGCCTGCCATTGCCGAGTTCTACAACACGATCAGCAACGTCTGTTTTTCATTTACCTCC
CATCTGCATGTGCTTGTCCGCCAGTACGCAACGTGCTTCAACAGCGGCATCTACTTAATATGGACGCTC
CTAGTTGTAGTGGGATTGGATCTGTCTACTTCCATGCAACGCTGAGTTTCTGGGTGAGATGCTTGATG
AACTTGCCATTCTGTGGTTCTGATGTGTGCTTTGGCCATGTGGTTTCCAGGAGGTATTTACCAAAGAT
CTTTCGGAATGACAGGTGTGACAATGTGCGTGTGTTAAGCTGGGCCTCTCTCTGGCCTCTGGTGGACT
CTGGCTCTCTTCTGCTGGATCAGCGACCAAGCCTTCTGTGAGCTGCTCTCCTCCTTTCACTTCCCCTACC
TGCACTGTGTGGCATATTCTCATCTGCCTTGCTTCGTACCTGGGCTGTGTGTGCTTCGCCTACTTTGA
TGCTGCCTCAGAGATACCTGAGCAAGGTCCAGTCATCAGATTCTGGCCAGCGAGAAATGGGCTTTTATT
GGTGTCCCTTATGTGTCCCTTCTGTGTGCCACAAGAAGTCGCCAGTCAAGATCACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG202750 representing BC059819
 Red=Cloning site Green=Tags(s)

MGAPHWWDHLRAGSSEVDWCEDNYTIVPAIAEFYNTISNVLFFILPPICMCLFRQYATCFNSGIYLIWTL
 LVVVGIGSVYFHATLSFLGQMLDELAAILWVLMCALAMWFP RRYLPKIFRNDRCNDNVRVFKLGLFSGLWWT
 LALFCWISDQAFCELLSSFHFPYLHCVWHILICLASYLGCVCFAYFDAASEIPEQGVPVIRFWPSEKWAFI
 GVPYVSLLLCAHKKSPVKIT

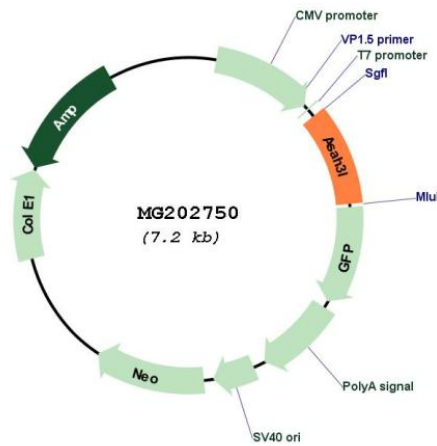
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC059819

ORF Size: 689 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:	<ol style="list-style-type: none">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:	BC059819 , AAH59819
RefSeq Size:	4078 bp
RefSeq ORF:	689 bp
Locus ID:	230379
Cytogenetics:	4 C4
Gene Summary:	<p>Golgi ceramidase that catalyzes the hydrolysis of ceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:29401619). 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:29401619). Has a better catalytic efficiency towards unsaturated long-chain ceramides, including C18:1-, C20:1- and C24:1-ceramides (By similarity) (PubMed:29401619). Saturated long-chain ceramides and unsaturated very long-chain ceramides are also good substrates, whereas saturated very long-chain ceramides and short-chain ceramides are poor substrates. Also hydrolyzes dihydroceramides to produce dihydrosphingosine (By similarity). It is the ceramidase that controls the levels of circulating sphingosine-1-phosphate and dihydrosphingosine-1-phosphate in plasma through their production by hematopoietic cells (PubMed:29401619). Regulates cell proliferation, autophagy and apoptosis by the production of sphingosine and sphingosine-1-phosphate. As part of a p53/TP53-dependent pathway, promotes for instance autophagy and apoptosis in response to DNA damage. Through the production of sphingosine, may also regulate the function of the Golgi complex and regulate the glycosylation of proteins (By similarity). [UniProtKB/Swiss-Prot Function]</p>