

Product datasheet for **MG216452**

Acer2 (NM_139306) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	Acer2
Synonyms:	2410116105Rik; Asah3l; CRG-L1; maCER2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >MG216452 representing NM_139306
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCGCCCCGCACTGGTGGGACCACCTGCGGGCTGGCAGTTCGGAGGTGGATTGGTGCGAGGACAAC
ACACTATCGTGCCTGCCATTGCCGAGTTCTACAACACGATCAGCAACGTCTTGTTCATTTTACCTCC
CATCTGCATGTGCTTGTCCGCCAGTACGCAACGTGCTTCAACAGCGGCATCTACTTAATATGGACGCTC
CTAGTTGTAGTGGGATTGGATCTGTCTACTTCCATGCAACGCTGAGTTTCCTGGGTCAGATGCTTGATG
AACTTGCCATTCTGTGGTCTGATGTGTGCTTTGGCCATGTGGTTCCAGGAGGTATTTACCAAAGAT
CTTTCGGAATGACAGGGCAGGTTCAAGGCAGTGGTGTGTCTGCTGCAATTACAACGTGCTTGGCG
TTTATCAAGCCCGCCATCAACAATATTTCCCTGATGATTCTGGGACTTCCATGCACTGCGCTGCTTGTG
CAGAGCTGAAGAGGTGTGACAAATGTGCGTGTGTTAAGCTGGGCTCTTCTGCGCTCTGGTGGACTCT
GGCTCTCTTCTGCTGGATCAGCGACCAAGCCTTCTGTGAGCTGCTCTCCTCTTCACTTCCCTACCTG
CACTGTGTGTGGCATACTCTATCTGCCTTGTTCGTACCTGGGCTGTGTGTGCTTCGCTACTTTGATG
CTGCCTCAGAGATACCTGAGCAAGGTCCAGTCATCAGATTCTGGCCAGCGAGAAATGGGCTTTTATTGG
TGTCCTTATGTGCCCTTCTGTGTGCCACAAGAAGTCGCCAGTCAAGATCACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



Protein Sequence: >MG216452 representing NM_139306
 Red=Cloning site Green=Tags(s)

MGAPHWHDHLRAGSSEVDWCEDNYTIVPAIAEFYNTISNVLFFILPPICMCLFRQYATCFNSGIYLIWTL
 LVVVGIGSVYFHATLSFLGQMLDELAAILWVLMCALAMWFPRRYLPKIFRNDGRGFKAVVCLSAITTCCLA
 FIKPAINNISLMILGLPCTALLVAELKRCDNVRVFKLGLFSGLWWTALFCWISDQAFCELLSSFHPYL
 HCVWHILICLASYLGCVCFAFYDAASEIPEQGPVIRFWPSEKWAFIGVPYVSLLLCAHKKSPVKIT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_139306

ORF Size: 825 bp

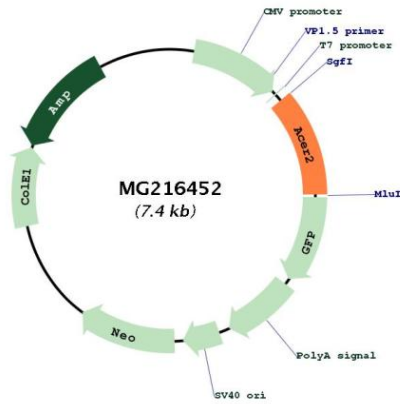
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_139306.3 , NP_647467.1
RefSeq Size:	4204 bp
RefSeq ORF:	828 bp
Locus ID:	230379
UniProt ID:	Q8VD53
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>

Product images:



Circular map for MG216452