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Product datasheet for MC212879

Acer2 (NM_139306) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Acer2 (NM_139306) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Acer2
Synonyms:	2410116I05Rik; Asah3l; CRG-L1; maCER2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

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>MC212879 representing NM_139306
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCGCCCCGCACTGGTGGGACCACCTGCGGGCTGGCAGTTCGGAGGTGGATTGGTGCGAGGACAACT
ACACTATCGTGCCTGCCATTGCCGAGTTCTACAACACGATCAGCAACGTCTTGTTTTTCATTTTACCTCC
CATCTGCATGTGCTTGTTCCGCCAGTACGCAACGTGCTTCAACAGCGGCATCTACTTAATATGGACGCTC
CTAGTTGTAGTGGGGATTGGATCTGTCTACTTCCATGCAACGCTGAGTTTCCTGGGTCAGATGCTTGATG
AACTTGCCATTCTGTGGGTTCTGATGTGTGCTTTGGCCATGTGGTTTCCCAGGAGGTATTTACCAAAGAT
CTTTCGGAATGACAGGGGCAGGTTCAAGGCAGTGGTGTGTGTCCTGTCTGCAATTACAACGTGCTTGGCG
TTTATCAAGCCCGCCATCAACAATATTTCCCTGATGATTCTGGGACTTCCATGCACTGCGCTGCTTGTTG
CAGAGCTGAAGAGGTGTGACAATGTGCGTGTGTTTAAGCTGGGCCTCTTCTCTGGCCTCTGGTGGACTCT
GGCTCTCTTCTGCTGGATCAGCGACCAAGCCTTCTGTGAGCTGCTCTCCTCCTTTCACTTCCCCTACCTG
CACTGTGTGTGGCATATTCTCATCTGCCTTGCTTCGTACCTGGGCTGTGTGTGCTTCGCCTACTTTGATG
CTGCCTCAGAGATACCTGAGCAAGGTCCAGTCATCAGATTCTGGCCCAGCGAGAAATGGGCTTTTATTGG
TGTCCCTTATGTGTCCCTTCTGTGTGCCCACAAGAAGTCGCCAGTCAAGATCACGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA
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Restriction Sites:	SgfI-MluI
ACCN:	NM_139306
Insert Size:	828 bp

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OTI Disclaimer:	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).
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_139306.3, NP_647467.1
RefSeq Size:	4206 bp
RefSeq ORF:	828 bp
Locus ID:	230379
UniProt ID:	Q8VD53
Cytogenetics:	4 C4
Gene Summary:	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] Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).

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