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Product datasheet for SC305969

ASAH3 (ACER1) (NM_133492) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ASAH3 (ACER1) (NM_133492) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACER1
Synonyms:	ALKCDase1; ASAH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC305969 representing NM_133492. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGCCTAGCATCTTCGCCTATCAGAGCTCCGAGGTGGACTGGTGTGAGAGCAACTTCCAGTACTCGGAG CTGGTGGCCGAGTTCTACAACACGTTCTCCAATATCCCCTTCTTCATCTTCGGGCCACTGATGATGCTC CTGATGCACCCGTATGCCCAGAAGCGCTCCCGCTACATTTACGTTGTCTGGGTCCTCTTCATGATCATA GGCCTGTTCTCCATGTATTTCCACATGACGCTCAGCTTCCTGGGCCAGCTGCTGGACGAGATCGCCATC CTGTGGCTCCTGGGCAGTGGCTATAGCATATGGATGCCCCGCTGCTATTTCCCCTCCTTCCTTGGGGGG AACAGGTCCCAGTTCATCCGCCTGGTCTTCATCACCACTGTGGTCAGCACCCTTCTGTCCTTCCTGCGG CCCACGGTCAACGCCTACGCCCTCAACAGCATTGCCCTGCACATTCTCTACATCGTGTGCCAGGAGTAC AGGAAGACCAGCAATAAGGAGCTTCGGCACCTGATTGAGGTCTCCGTGGTTTTATGGGCTGTTGCTCTG ACCAGCTGGATCAGTGACCGTCTGCTTTGCAGCTTCTGGCAGAGGATTCATTTCTTCTATCTGCACAGC ATCTGGCATGTGCTCATCAGCATCACCTTCCCTTATGGCATGGTCACCATGGCCTTGGTGGATGCCAAC TATGAGATGCCAGGTGAAACCCTCAAAGTCCGCTACTGGCCTCGGGACAGTTGGCCCGTGGGGCTGCCC TACGTGGAAATCCGGGGTGATGACAAGGACTGCTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI

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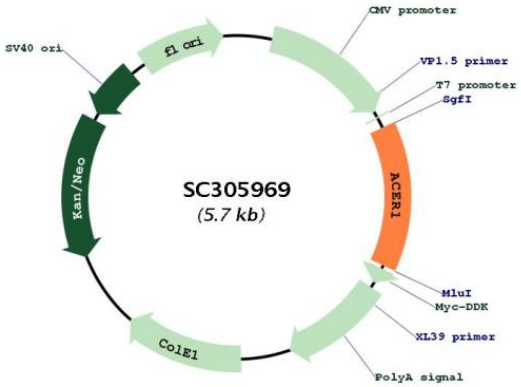
Plasmid Map:



ACCN:	NM_133492
Insert Size:	795 bp
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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_133492.2
RefSeq Size:	1088 bp

RefSeq ORF:	795 bp
Locus ID:	125981
UniProt ID:	Q8TDN7
Cytogenetics:	19p13.3
Protein Families:	Transmembrane
Protein Pathways:	Metabolic pathways, Sphingolipid metabolism
MW:	31.1 kDa
Gene Summary:	Ceramides are synthesized during epidermal differentiation and accumulate within the interstices of the stratum corneum, where they represent critical components of the epidermal permeability barrier. Excess cellular ceramide can trigger antimitogenic signals and induce apoptosis, and the ceramide metabolites sphingosine and sphingosine-1-phosphate (S1P) are important bioregulatory molecules. Ceramide hydrolysis in the nucleated cell layers regulates keratinocyte proliferation and apoptosis in response to external stress. Ceramide hydrolysis also occurs at the stratum corneum, releasing free sphingoid base that functions as an endogenous antimicrobial agent. ACER1 is highly expressed in epidermis and catalyzes the hydrolysis of very long chain ceramides to generate sphingosine (Houben et al., 2006 [PubMed 16477081]; Sun et al., 2008 [PubMed 17713573]).[supplied by OMIM, Jul 2010]