Product datasheet for SC334148

Phytoceramidase (ACER3) (NM_001300954) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Phytoceramidase (ACER3) (NM_001300954) Human Untagged Clone
Tag:	Tag Free
Symbol:	ACER3
Synonyms:	APHC; PHCA; PLDECO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001300954, the custom clone sequence may differ by one or more nucleotides

ATGATATACAGCTGTTGCATATTTGTGTACTGCATGTTTGAATGTTTCAAGATCAAGAACTCAGTAAACT
ACCATCTGCTTTTTACCTTAGTTCTATTCAGTTTAATAGTAACCACAGTTTACCTTAAGGTAAAAGAGCC
GATATTCCATCAGGTCATGTATGGAATGTTGGTCTTTACATTAGTACTTCGATCTATTTATATTGTTACA
TGGGTTTATCCATGGCTTAGAGGACTGGGTTATACATCATTGGGTATATTTTTATTGGGATTTTTATTTT
GGAATATAGATAACATATTTTGTGAGTCACTGAGGAACTTTCGAAAGAAGGTACCACCTATCATAGGTAT
TACCACACAATTTCATGCATGGTGGCATATTTTAACTGGCCTTGGTTCCTATCTTCACATCCTTTTCAGT
TTGTATACAAGAACACTTTACCTGAGATATAGGCCAAAAGTGAAGTTTCTCTTTGGAATCTGGCCAGTGA
TCCTGTTTGAGCCTCTCAGGAAGCATTGA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001300954
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).

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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_001300954.1, NP_001287883.1
RefSeq Size:	7461 bp
RefSeq ORF:	519 bp
Locus ID:	55331
Cytogenetics:	11q13.5
Protein Families:	Transmembrane
Protein Pathways:	Sphingolipid metabolism
Gene Summary:	Endoplasmic reticulum and Golgi ceramidase that catalyzes the hydrolysis of unsaturated long-chain C18:1-, C20:1- and C20:4-ceramides, dihydroceramides and phytoceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed:20068046, PubMed:26792856, PubMed:20207939, PubMed:11356846, PubMed:30575723). 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:20068046). Controls the generation of sphingosine in erythrocytes, and thereby sphingosine-1-phosphate in plasma (PubMed:20207939). Through the regulation of ceramides and sphingosine-1-phosphate homeostasis in the brain may play a role in neurons survival and function (By similarity). By regulating the levels of proinflammatory ceramides in immune cells and tissues, may modulate the inflammatory response (By similarity).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (3) lacks an internal exon and has another exon in its place compared to variant 1. The resulting isoform (c) is shorter at the N-terminus compared to isoform a. Variants 3 and 4 both encode the same isoform (c). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.