

## Product datasheet for **SC334642**

### Phytoceramidase (ACER3) (NM\_001300953) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phytoceramidase (ACER3) (NM_001300953) 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_001300953, the custom clone sequence may differ by one or more nucleotides

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ATGGCTCCGGCCGCGGACCGAGAGGGCTACTGGGGCCCCACGACCTCCACGCTGGACTGGTGCGAGGAGA
ACTACTCCGTGACCTGGTACATCGCCGAGTTCTTGGTAGGAATGGGATCCTGGTGCTCCACATGACTCT
GAAATATGAAATGCAGCTATTGGATGAACTCCCAATGATACAGCTGTTGCATATTTGTGACTGCATG
TTTGAATGTTTCAAGATCAAGAAGTCAAGTAACTACCCTGCTTTTACCTTAGTTCTATTCAGTTTAA
TAGTAACACAGTTTACCTTAAGGTAAGAGCCGATATCCATCAGGTCATGTATGGAATGTTGGTCTT
TACATTAGTACTCGATCTATTTATATTGTTACATGGGTTTATCCATGGCTTAGAGGACTGGTTATACA
TCATTGGGTATATTTTTATTGGGATTTTTATTTTGAATATAGATAACATATTTTGTGAGTCACTGAGGA
ACTTTTCAAAGAAGTACCACCTATCATAGGTATTACCACACAATTTTCATGCATGGTGGCATATTTTAA
TGGCCTTGGTTTCTATCTTCACATCCTTTTCAGTTTGTATACAAGAACACTTTACCTGAGATATAGCCA
AAAGTGAAGTTTCTTTTGAATCTGGCCAGTGATCCTGTTTGGAGCTCTCAGGAAGCATTGA
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_001300953
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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<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001300953.1, NP_001287882.1</u>
<b>RefSeq Size:</b>	7279 bp
<b>RefSeq ORF:</b>	693 bp
<b>Locus ID:</b>	55331
<b>Cytogenetics:</b>	11q13.5
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Sphingolipid metabolism
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (b) has the same N- and C-termini but is shorter compared to isoform a.</p> <p>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.</p>