

## Product datasheet for **RG211332**

### ASAH3 (ACER1) (NM\_133492) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ASAH3 (ACER1) (NM_133492) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ASAH3
Synonyms:	ALKCDase1; ASAH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211332 representing NM_133492 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCTAGCATCTTCGCCTATCAGAGCTCCGAGGTGGACTGGTGTGAGAGCAACTCCAGTACTCGGAGC  
TGGTGGCCGAGTTCTACAACACGTTCTCCAATATCCCCTTCTTCATCTTCGGGCCACTGATGATGCTCCT  
GATGCACCCGATGCCAGAAGCGCTCCCGCTACATTTACGTTGTCTGGGTCCTTTCATGATCATAGGC  
CTGTTCTCCATGTATTTCCACATGACGCTCAGCTTCTGGGCCAGCTGCTGGACGAGATCGCCATCTGT  
GGCTCCTGGGCAGTGGCTATAGCATATGGATGCCCGCTGCTATTTCCCCTCCTTCTGGGGGAACAG  
GTCCCAGTTCATCCGCTGGTCTTCATCACCAGTGGTTCAGCACCCCTTCTGTCCCTCCTGCGGCCACG  
GTCAACGCCTACGCCCTCAACAGCATTGCCCTGCACATTTCTACATCGTGTGCCAGGAGTACAGGAAGA  
CCAGCAATAAGGAGCTTCGGCACCTGATTGAGGTCTCCGTGGTTTTATGGGCTGTTGCTCTGACCAGCTG  
GATCAGTGACCGTCTGCTTTCAGCTTCTGGCAGAGGATTCATTTCTTCTATCTGCACAGCATCTGGCAT  
GTGCTCATCAGCATCACCTTCCCTTATGGCATGGTCACCATGGCCTTGGTGGATGCCAATATGAGATGC  
CAGGTGAAACCCTCAAAGTCCGCTACTGGCCTCGGGACAGTTGGCCCGTGGGGCTGCCCTACGTGAAAT  
CCGGGGTGATGACAAGGACTGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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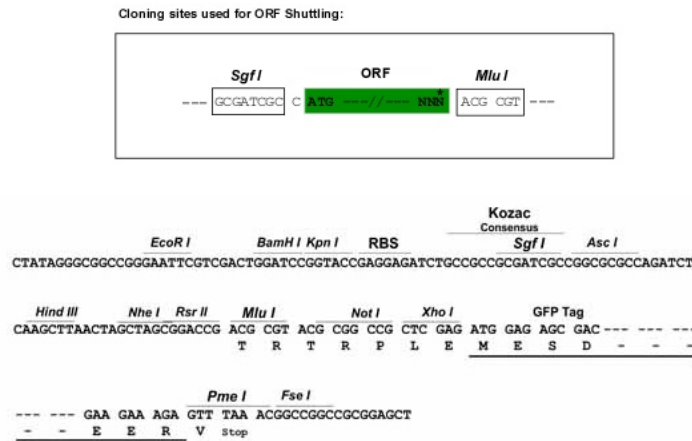
**Protein Sequence:** >RG211332 representing NM\_133492  
 Red=Cloning site Green=Tags(s)

MPSIFAYQSSEVDWCESNFQYSELVAEFYNTFSNIPFFIFGPLMMLMHPYAQKRSRYIYVVWVLFMIIG  
 LFSMYFHMTLSFLGQLLDEIAILWLLGSGYSIWMPCYFSPFLGGNRSQFIRLVFITTVVSTLLSFLRPT  
 VNAYALNSIALHILYIVCQEYRKTSNKELRHLIEVSVLVAVALTSWISDRLLCSFWQRIHFFYLHSIWH  
 VLISITFPYGMVTMALVDANYEMPGETLKVRYWPRDSWPVGLPYVEIRGDDKDC

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_133492

**ORF Size:** 792 bp

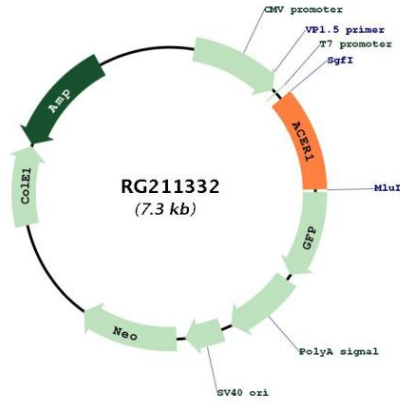
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>	<a href="#">NM_133492.3</a>
<b>RefSeq Size:</b>	795 bp
<b>RefSeq ORF:</b>	795 bp
<b>Locus ID:</b>	125981
<b>UniProt ID:</b>	<a href="#">Q8TDN7</a>
<b>Cytogenetics:</b>	19p13.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Metabolic pathways, Sphingolipid metabolism
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for RG211332