

# Recombinant Full Length Human ACER1 Protein, C-Flag-tagged

**Cat. No.** ACER1-1828HFL    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Full Length Human ACER1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
<b>Species</b>	Human
<b>Source</b>	Mammalian Cells
<b>Description</b>	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.
<b>Form</b>	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
<b>Molecular Mass</b>	30.9 kDa
<b>AA Sequence</b>	MPSIFAYQSSEVDWCESNFQYSELVAEFYNTFSNIPFFIFGPLMMLLHPYAQKRSR YIYVWVLFMIIG LFSMYFHMTLSFLGQLLDEIAILWLLGSGYSIWMPCRYFPSFLGG

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NRSQFIRLVFITTVVSTLLSFLRPT VNAYALNSIALHILYIVCQEYRKTSNKELRHIEV  
 SVVLWAVALTSWISDRLLCSFWQRIHFFYLHSIWH VLISITFPYGMVTMALVDANYE  
 MPGETLKVRYWPRDSWPVGLPYVEIRGDDKDC TRTRPLEQKLISEEDLAANDILDY  
 KDDDDKV

<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining.
<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade.
<b>Concentration</b>	>50 ug/mL as determined by microplate BCA method.
<b>Preparation</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Protein Families</b>	Transmembrane
<b>Protein Pathways</b>	Metabolic pathways, Sphingolipid metabolism
<b>Full Length</b>	Full L.

## GENE INFORMATION

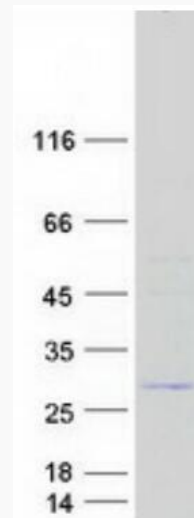
<b>Gene Name</b>	ACER1 alkaline ceramidase 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	ACER1
<b>Synonyms</b>	ASAH3; ALKCDase1

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<b>Gene ID</b>	125981
<b>mRNA Refseq</b>	NM_133492.3
<b>Protein Refseq</b>	NP_597999.1
<b>MIM</b>	613491
<b>UniProt ID</b>	Q8TDN7



Coomassie blue staining of purified ACER1 protein.

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