

Recombinant Human ACER1, GST-tagged

Cat. No. ACER1-9287H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ACER1 protein, fused to GST-tag, was expressed in E.coli and purified by GSH-sepharose.
Species	Human
Source	E.coli
ProteinLength	C-term-51a.a.
Description	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.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

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GENE INFORMATION

Gene Name	ACER1 alkaline ceramidase 1 [Homo sapiens]
Official Symbol	ACER1
Synonyms	ACER1; alkaline ceramidase 1; ASAH3, N acylsphingosine amidohydrolase (alkaline ceramidase) 3; alkCDase 1; alkaline CDase 1; acylsphingosine deacylase 3; N-acylsphingosine amidohydrolase 3; N-acylsphingosine amidohydrolase (alkaline ceramidase) 3; ASAH3; ALKCDase1; MGC138327; MGC138329;
Gene ID	125981
mRNA Refseq	NM_133492
Protein Refseq	NP_597999
MIM	613491
UniProt ID	Q8TDN7
Chromosome Location	19p13.3
Pathway	Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of lipids and lipoproteins, organism-specific biosystem; Sphingolipid de novo biosynthesis, organism-specific biosystem; Sphingolipid metabolism, organism-specific biosystem; Sphingolipid metabolism, organism-specific biosystem; Sphingolipid metabolism, conserved biosystem;
Function	ceramidase activity; hydrolase activity;

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