

Product Information

MemDX™ Membrane Protein Human ACER1 (Alkaline ceramidase 1) Expressed *in vitro* *E.coli* expression system, Full Length

Cat. No.: **MPX2901K**

This product is for research use only and is not intended for diagnostic use.

This product is a Human ACER1 membrane protein expressed *in vitro* *E.coli* expression system. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

ACER1

Protein Length

Full Length

Protein Class

Receptor

TMD

7

Sequence

MPSIFAYQSSEVDWCESNFQYSELVAEFYNTFSNIPFFIFGPLMMLLMHPYAQKRSRYIYVWVLFMIIGLFSMYFHMTLSFLGQLLD

Product Description

Expression Systems

in vitro *E.coli* expression system

Tag

10xHis tag at the N-terminus

Protein Format

Soluble

Form

Liquid or Lyophilized powder

Buffer

Tris/PBS-based buffer, 6% Trehalose, pH 8.0

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -70°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

ACER1

Full Name

Alkaline ceramidase 1

Introduction

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.

Alternative Names

ACER1; ASAH3; ALKCDase1; CTB-180A7.3; N-acylsphingosine amidohydrolase (alkaline ceramidase) 3; N-acylsphingosine amidohydrolase 3; acylsphingosine deacylase 3; alkCDase 1; alkaline CDase 1; Alkaline ceramidase 1

Gene ID

[125981](#)

UniProt ID

[Q8TDN7](#)