

#### **ASAH3 Polyclonal Antibody**

**Catalog # AP73855** 

#### **Specification**

### **ASAH3 Polyclonal Antibody - Product Information**

Application WB
Primary Accession Q8TDN7
Reactivity Human
Host Rabbit
Clonality Polyclonal

#### **ASAH3 Polyclonal Antibody - Additional Information**

**Gene ID** 125981

#### **Other Names**

ACER1; ASAH3; Alkaline ceramidase 1; AlkCDase 1; Alkaline CDase 1; Acylsphingosine deacylase 3; N-acylsphingosine amidohydrolase 3

#### Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

# **Storage Conditions**

-20°C

#### **ASAH3 Polyclonal Antibody - Protein Information**

Name ACER1 (HGNC:18356)

**Synonyms** ASAH3

#### **Function**

Endoplasmic reticulum ceramidase that catalyzes the hydrolysis of ceramides into sphingosine and free fatty acids at alkaline pH (PubMed:<a href="http://www.uniprot.org/citations/17713573" target="\_blank">17713573</a>, PubMed:<a href="http://www.uniprot.org/citations/20207939" target="\_blank">20207939</a>, PubMed:<a href="http://www.uniprot.org/citations/20628055" target="\_blank">20628055</a>). 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:<a href="http://www.uniprot.org/citations/12783875" target="\_blank">12783875</a>). Exhibits a strong substrate specificity towards the natural stereoisomer of ceramides with D-erythro-sphingosine as a backbone and has a higher activity towards very long-chain unsaturated fatty acids like the C24:1-ceramide (PubMed:<a href="http://www.uniprot.org/citations/17713573" target="\_blank">17713573</a>, PubMed:<a href="http://www.uniprot.org/citations/20207939" target="\_blank">20207939</a>, PubMed:<a href="http://www.uniprot.org/citations/20207939" target="\_blank">20207939</a>, May also





hydrolyze dihydroceramides to produce dihydrosphingosine (PubMed:<a href="http://www.uniprot.org/citations/20207939" target="\_blank">20207939</a>, PubMed:<a href="http://www.uniprot.org/citations/20628055" target="\_blank">20628055</a>). ACER1 is a skin-specific ceramidase that regulates the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes and more generally plays an important role in skin homeostasis (PubMed:<a href="http://www.uniprot.org/citations/17713573" target="blank">17713573</a>).

#### **Cellular Location**

Endoplasmic reticulum membrane; Multi-pass membrane protein

#### **Tissue Location**

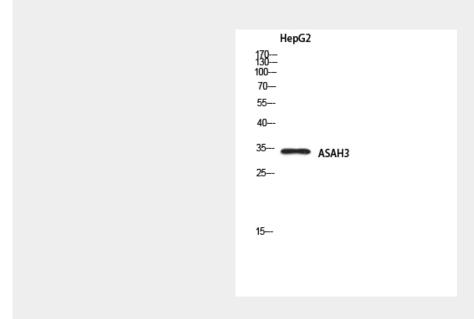
Mainly expressed in epidermis.

#### **ASAH3 Polyclonal Antibody - Protocols**

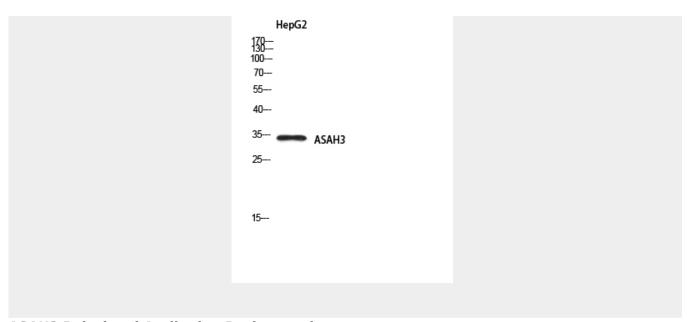
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### **ASAH3 Polyclonal Antibody - Images**







## **ASAH3 Polyclonal Antibody - Background**

Endoplasmic reticulum ceramidase that catalyzes the hydrolysis of ceramides into sphingosine and free fatty acids at alkaline pH (PubMed:17713573, PubMed:20207939, PubMed:20628055). 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:12783875). Exhibits a strong substrate specificity towards the natural stereoisomer of ceramides with D-erythro-sphingosine as a backbone and has a higher activity towards very long-chain unsaturated fatty acids like the C24:1-ceramide (PubMed:17713573, PubMed:20207939). May also hydrolyze dihydroceramides to produce dihydrosphingosine (PubMed:20207939, PubMed:20628055). ACER1 is a skin-specific ceramidase that regulates the levels of ceramides, sphingosine and sphingosine-1-phosphate in the epidermis, mediates the calcium-induced differentiation of epidermal keratinocytes and more generally plays an important role in skin homeostasis (PubMed:17713573).