

ASAH3L Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50775**Specification**

ASAH3L Antibody - Product Information

Application	WB
Primary Accession	Q5QJU3
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31,26,16 KDa
Antigen Region	102-130

ASAH3L Antibody - Additional Information**Gene ID** 340485**Other Names**

Alkaline ceramidase 2, AlkCDase 2, Alkaline CDase 2, haCER2, Acylsphingosine deacylase 3-like, N-acylsphingosine amidohydrolase 3-like, ACER2, ASAH3L

Dilution

WB~~ 1:1000

FormatRabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.**Storage Conditions**

-20°C

ASAH3L Antibody - Protein Information**Name** ACER2 ([HGNC:23675](#))**Synonyms** ASAH3L**Function**

Golgi ceramidase that catalyzes the hydrolysis of ceramides into sphingoid bases like sphingosine and free fatty acids at alkaline pH (PubMed: [16940153](http://www.uniprot.org/citations/16940153), PubMed: [18945876](http://www.uniprot.org/citations/18945876), PubMed: [20089856](http://www.uniprot.org/citations/20089856), PubMed: [20207939](http://www.uniprot.org/citations/20207939)). 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: [20207939](http://www.uniprot.org/citations/20207939)). Has a better

catalytic efficiency towards unsaturated long-chain ceramides, including C18:1-, C20:1- and C24:1-ceramides (PubMed:16940153, PubMed:18945876, PubMed:20089856, PubMed:20207939). Saturated long-chain ceramides and unsaturated very long-chain ceramides are also good substrates, whereas saturated very long-chain ceramides and short-chain ceramides are poor substrates (PubMed:20089856). Also hydrolyzes dihydroceramides to produce dihydrosphingosine (PubMed:20207939, PubMed:20628055). It is the ceramidase that controls the levels of circulating sphingosine-1-phosphate and dihydrosphingosine-1-phosphate in plasma through their production by hematopoietic cells (By similarity). Regulates cell proliferation, autophagy and apoptosis by the production of sphingosine and sphingosine-1-phosphate (PubMed:16940153, PubMed:26943039, PubMed:28294157, PubMed:29229990). As part of a p53/TP53-dependent pathway, promotes for instance autophagy and apoptosis in response to DNA damage (PubMed:26943039, PubMed:28294157, PubMed:29229990). Through the production of sphingosine, may also regulate the function of the Golgi complex and regulate the glycosylation of proteins (PubMed:18945876).

Cellular Location

Golgi apparatus membrane; Multi-pass membrane protein

Tissue Location

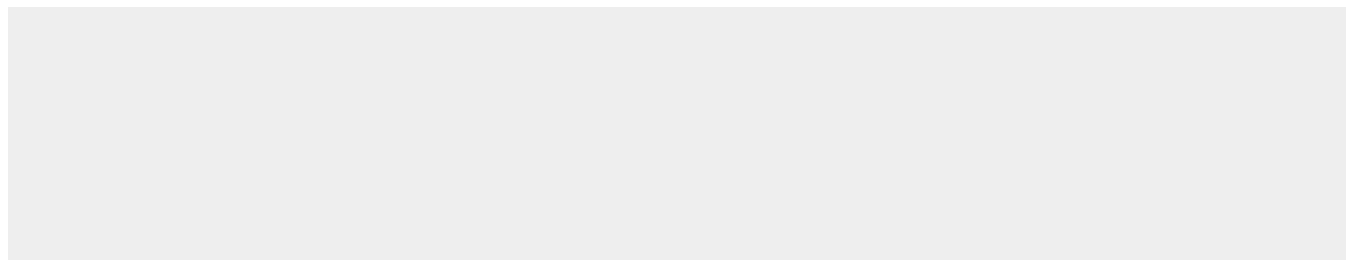
Highly expressed in placenta.

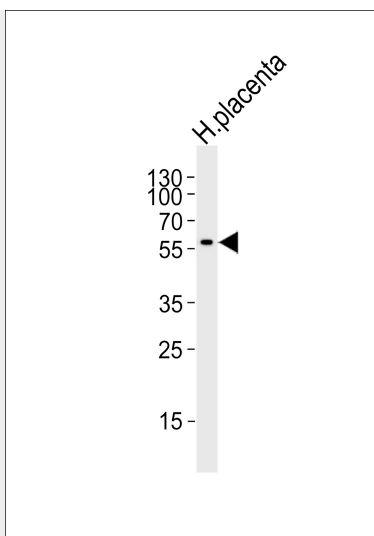
ASAH3L Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ASAH3L Antibody - Images





Western blot analysis of lysate from human placenta tissue lysate, using ASAH3L Antibody (AP50775). AP50775 was diluted at 1:1000. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.

ASAH3L Antibody - Background

Hydrolyzes the sphingolipid ceramide into sphingosine and free fatty acid. Unsaturated long-chain ceramides are the best substrates, saturated long-chain ceramides and unsaturated very long-chain ceramides are good substrates, whereas saturated very long-chain ceramides and short-chain ceramides were poor substrates. The substrate preference is D-erythro-C(18:1)-, C(20:1)-, C(20:4)-ceramide > D-erythro-C(16:0)-, C(18:0), C(20:0)- ceramide > D-erythro-C(24:1)-ceramide > D-erythro-C(12:0)- ceramide, D-erythro-C(14:0)-ceramides > D-erythro-C(24:0)-ceramide > D-erythro-C(6:0)-ceramide. Inhibits the maturation of protein glycosylation in the Golgi complex, including that of integrin beta-1 (ITGB1) and of LAMP1, by increasing the levels of sphingosine. Inhibits cell adhesion by reducing the level of ITGB1 in the cell surface. May have a role in cell proliferation and apoptosis that seems to depend on the balance between sphingosine and sphingosine-1-phosphate.

ASAH3L Antibody - References

- Xu R., et al. FASEB J. 20:1813-1825(2006).
- Wan D., et al. Proc. Natl. Acad. Sci. U.S.A. 101:15724-15729(2004).
- Humphray S.J., et al. Nature 429:369-374(2004).
- Sun W., et al. FASEB J. 23:656-666(2009).
- Sun W., et al. J. Biol. Chem. 285:8995-9007(2010).