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APH1 Antibody
Catalog # ASC10486

Specification

APH1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q96BI3
Other Accession	AAH08732, 14250557
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**APH1 antibody can be used for detection of APH1 by Western blot at 0.5 - 1 µg/mL. Despite its predicted molecular weight, APH1 protein often migrates at aberrant locations in SDS-PAGE. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.**

APH1 Antibody - Additional Information

Gene ID **51107**

Other Names
APH1 Antibody: APH-1, APH-1A, CGI-78, 6530402N02Rik, PSF, UNQ579/PRO1141, Gamma-secretase subunit APH-1A, Aph-1alpha, APH-1a, anterior pharynx defective 1 homolog A (C. elegans)

Target/Specificity
APH1A;

Reconstitution & Storage
APH1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
APH1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

APH1 Antibody - Protein Information

Name APH1A

Synonyms PSF

Function
Non-catalytic subunit of the gamma-secretase complex, an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP

(amyloid- beta precursor protein) (PubMed:12297508, PubMed:12522139, PubMed:12679784, PubMed:12763021, PubMed:25043039, PubMed:26280335, PubMed:30598546, PubMed:30630874). Required for normal gamma-secretase assembly (PubMed:12471034, PubMed:12522139, PubMed:12763021, PubMed:19369254). The gamma-secretase complex plays a role in Notch and Wnt signaling cascades and regulation of downstream processes via its role in processing key regulatory proteins, and by regulating cytosolic CTNNB1 levels (Probable).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus, Golgi stack membrane; Multi-pass membrane protein. Note=Predominantly located in the endoplasmic reticulum and in the cis-Golgi

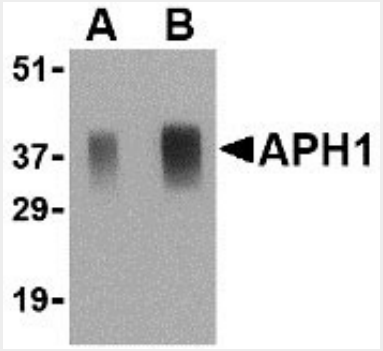
Tissue Location
Widely expressed. Expressed in leukocytes, lung, placenta, small intestine, liver, kidney, spleen thymus, skeletal muscle, heart and brain. Isoform 1 and isoform 2 are nearly expressed at the same level.

APH1 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 Cytomety
- Cell Culture

APH1 Antibody - Images



Western blot analysis of APH1 in human brain tissue lysate with APH1 antibody at (A) 0.5 and (B)

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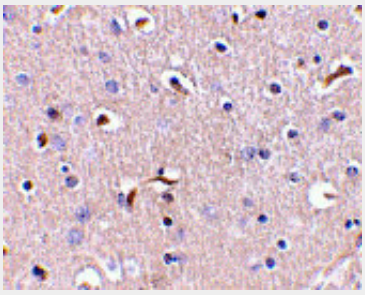
1 µg/mL.



Immunohistochemistry of APH1 in human brain tissue with APH1 antibody at 5 µg/mL.

APH1 Antibody - Background

APH1 Antibody: APH1 was initially identified as a component of the Notch pathway in C. elegans. Along with nicastrin, PEN2, and presenilin-1 APH1 is an essential component of the gamma-secretase complex which cleave the amyloid precursor protein (APP) at what are known as the gamma- and epsilon-sites and can lead to the accumulation of the Amyloid beta peptide (Abeta) cleavage product that is associated with Alzheimer's disease. APH1 exists in at least three distinct isoforms with APH1a as the principal isoform present in the gamma-secretase complex. Mice deficient in this isoform, but not the other two, were lethal at E10.5, with impaired vascular and neural development observed.

APH1 Antibody - References

Goutte C, Tsunozaki M, Hale VA, et al. APH-1 is a multipass membrane protein essential for the Notch signaling pathway in Caenorhabditis elegans embryos. Proc. Natl. Acad. Sci. USA2002; 99:775-9.
Periz G and Fortini ME. Functional reconstitution of γsecretase through coordinated expression of presenilin, nicastrin, aph-1, and pen-2. J. Neurosci. Res. 2004; 77:309-22.
Selkoe DJ. The cell biology of βamyloid precursor protein and presenilin in Alzheimer’s disease. Trends Cell Biol. 1998; 8:447-53.
Ma G, Li T, Price DL, et al. APH-1a is the principal mammalian aph-1 isoform present in g-secretase complexes during embryonic development. Neuro. Dis. 2005; 25:192-8.