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PION Antibody
Catalog # ASC11271

Specification

PION Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	A4D1B5
Other Accession	NP_059135, 54103
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**PION antibody can be used for detection of PION by Western blot at 0.25 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

PION Antibody - Additional Information

Gene ID	**54103**

Target/Specificity
PION antibody was raised against a 19 amino acid synthetic peptide near the carboxy terminus of human PION.

The immunogen is located within amino acids 770 - 820 of PION.

Reconstitution & Storage
PION 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
PION Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PION Antibody - Protein Information

Name GSAP

Synonyms PION

Function
Regulator of gamma-secretase activity, which specifically activates the production of amyloid-beta protein (amyloid-beta protein 40 and amyloid-beta protein 42), without affecting the cleavage of other gamma-secretase targets such has Notch. The gamma-secretase complex is an endoprotease complex that catalyzes the intramembrane cleavage of integral membrane proteins such as Notch receptors and APP (amyloid-beta precursor protein). Specifically promotes the gamma- cleavage of APP CTF-alpha (also named APP-CTF) by the gamma-secretase complex to generate amyloid-beta, while it reduces the epsilon-cleavage of APP CTF-alpha, leading to a low production of AICD.

Cellular Location
Golgi apparatus, trans-Golgi network

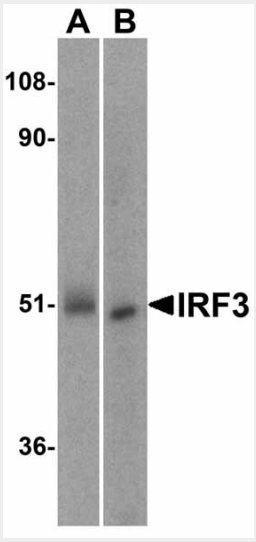
Tissue Location
Widely expressed..

PION 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

PION Antibody - Images



Western blot analysis of IRF3 in (A) human kidney and (B) rat kidney lysate with IRF3 antibody at 1 µg/mL..

PION Antibody - Background

PION Antibody: Accumulation of the amyloid-beta peptide (Abeta) in the cerebral cortex is a critical event in the pathogenesis of Alzheimer's disease. The beta-amyloid protein precursor (APP) is cleaved by one of two beta-secretases (BACE and BACE2), producing a soluble derivative of the protein and a membrane anchored 99 -amino acid carboxy-terminal fragment (C99). The C99 fragment serves as substrate for gamma-secretase to generate the 4 kDa amyloid-beta peptide (Abeta), which is deposited in the Alzheimer's disease patient's brains. PION, or GSAP, selectively increases amyloid-beta production through a mechanism involving its interaction with both gamma-secretase and the APP C-terminal fragment, suggesting that PION may be a potential therapeutic target for the treatment of Alzheimer's disease.

PION Antibody - References

Ponte P, Gonzalez-DeWhitt P, Schilling J, et al. A new A4 amyloid mRNA contains a domain homologous to serine proteinase inhibitors. Nature1988; 331:525-77.
Selkoe DJ. Cell biology of the amyloid beta-protein precursor and the mechanism of Alzheimer's disease. Annu. Rev. Cell Biol.1994; 10:373-403.
He G, Luo W, Li P, et al. Gamma-secretase activating protein is a therapeutic target for Alzheimer’s diease. Nature2010; 467:95-9.