

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP6305b**Specification**

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Product InformationPrimary Accession
Other Accession[P49810](#)
[PSN2_HUMAN](#)**Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 5664**Other Names**

Presenilin-2, PS-2, 3423-, AD3LP, AD5, E5-1, STM-2, Presenilin-2 NTF subunit, Presenilin-2 CTF subunit, PSEN2, AD4, PS2, PSNL2, STM2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6305b](/product/products/AP6305b) was selected from the N-term region of human PSN2 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Protein Information**Name** PSEN2**Synonyms** AD4, PS2, PSNL2, STM2**Function**

Probable 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). Requires the other members of the gamma- secretase complex to have a protease activity. May play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane. May function in the cytoplasmic partitioning of proteins. The holoprotein functions as a calcium-leak channel that allows the passive movement of calcium from endoplasmic reticulum to cytosol and is involved in calcium homeostasis (PubMed:<http://www.uniprot.org/citations/16959576> target="_blank">16959576). Is a regulator

of mitochondrion-endoplasmic reticulum membrane tethering and modulates calcium ions shuttling between ER and mitochondria (PubMed:21285369).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein

Tissue Location

Isoform 1 is seen in the placenta, skeletal muscle and heart while isoform 2 is seen in the heart, brain, placenta, liver, skeletal muscle and kidney.

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Images**Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - Background**

PSEN2 is the probable 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 (beta-amyloid precursor protein). The gamma-secretase complex is composed of a presenilin homodimer (PSEN1 or PSEN2), nicastrin (NCSTN), APH1 (APH1A or APH1B) and PEN2. Such minimal complex is sufficient for secretase activity, although other components may exist. PSEN2 requires the other members of the gamma-secretase complex to have a protease activity. This protein may play a role in intracellular signaling and gene expression or in linking chromatin to the nuclear membrane, and may also function in the cytoplasmic partitioning of proteins. PSEN2 has been shown to interact with HERPUD1, FLNA and FLNB. The protein appears to localize to the Golgi and endoplasmic reticulum. Isoform 1 is seen in the placenta, skeletal muscle and heart while isoform 2 is seen in the heart, brain, placenta, liver, skeletal muscle and kidney. Defects in PSEN2 are the cause of an inherited form of Alzheimer disease (AD), an autosomal dominant neurodegenerative disorder characterized by progressive dementia, parkinsonism, and deposition of fibrillar amyloid proteins as intraneuronal neurofibrillary tangles, extracellular amyloid plaques and vascular amyloid deposits. Three causative genes have been identified that when mutated lead to presenile Alzheimer's disease: APP (amyloid precursor protein gene), PSEN1 and PSEN2. These three genes account for half of the families with autosomal dominant presenile AD, which represent approximately 10% of the whole AD population.

Presenilin 2 (PSEN2) Antibody (N-term) Blocking peptide - References

Sai, X., et al., J. Biol. Chem. 277(15):12915-12920 (2002). Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002). Finckh, U., et al., Am. J. Hum. Genet. 66(1):110-117 (2000). Kimberly, W.T., et al., J. Biol. Chem. 275(5):3173-3178 (2000). Steiner, H., et al., J. Biol. Chem. 274(40):28669-28673 (1999).