

PEN2 Antibody (Center P45) Blocking Peptide
Synthetic peptide
Catalog # BP6301b**Specification**

PEN2 Antibody (Center P45) Blocking Peptide - Product InformationPrimary Accession [Q9NZ42](#)**PEN2 Antibody (Center P45) Blocking Peptide - Additional Information****Gene ID** 55851**Other Names**

Gamma-secretase subunit PEN-2, Presenilin enhancer protein 2, PSENEN, PEN2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6301b](/product/products/AP6301b) was selected from the Center region of human PEN2. 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.

PEN2 Antibody (Center P45) Blocking Peptide - Protein Information**Name** PSENEN**Synonyms** PEN2**Function**

Essential 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: [12522139](http://www.uniprot.org/citations/12522139), PubMed: [12763021](http://www.uniprot.org/citations/12763021), PubMed: [12740439](http://www.uniprot.org/citations/12740439), PubMed: [12679784](http://www.uniprot.org/citations/12679784), PubMed: [24941111](http://www.uniprot.org/citations/24941111), PubMed: [30598546](http://www.uniprot.org/citations/30598546), PubMed: [30630874](http://www.uniprot.org/citations/30630874)). 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). PSENEN modulates both endoproteolysis of presenilin and gamma-secretase activity (PubMed:12522139, PubMed:12763021, PubMed:12740439, PubMed:12679784, PubMed:24941111).

Cellular Location

Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus, Golgi stack membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. 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.

PEN2 Antibody (Center P45) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PEN2 Antibody (Center P45) Blocking Peptide - Images

PEN2 Antibody (Center P45) Blocking Peptide - Background

Presenilins, which are components of the gamma-secretase protein complex, are required for intramembranous processing of some type I transmembrane proteins, such as the Notch proteins and the beta-amyloid precursor protein. Signaling by Notch receptors mediates a wide range of developmental cell fates. Processing of the beta-amyloid precursor protein generates neurotoxic amyloid beta peptides, the major component of senile plaques associated with Alzheimer's disease. PEN2 is required for Notch pathway signaling, and for the activity and accumulation of gamma-secretase.

PEN2 Antibody (Center P45) Blocking Peptide - References

Marlow, L., et al., Biochem. Biophys. Res. Commun. 305(3):502-509 (2003).Crystal, A.S., et al., J. Biol. Chem. 278(22):20117-20123 (2003).Takasugi, N., et al., Nature 422(6930):438-441 (2003).Steiner, H., et al., J. Biol. Chem. 277(42):39062-39065 (2002).Francis, R., et al., Dev. Cell 3(1):85-97 (2002).