10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PEN2 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6301d

Specification

PEN2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9NZ42

PEN2 Antibody (N-term) 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 AP6301d was selected from the N-term 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 (N-term) 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, PubMed:12763021, PubMed:12740439, PubMed:12679784, PubMed:24941111, PubMed:30598546, PubMed: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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

PEN2 Antibody (N-term) Blocking Peptide - Images

PEN2 Antibody (N-term) 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 (N-term) 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).