

PEN2 Polyclonal Antibody

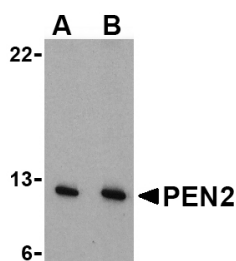
Product Specifications	
Catalog Number:	905-736-100
Host:	Rabbit
Species Reactivity:	Human, mouse, rat
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 0.5-1 µg/mL
Predicted m.w:	~11 kDa
Concentration:	See product label
Purification:	Peptide Affinity
Format:	PBS, 0.02% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at 4°C
Immunogen:	Synthetic peptide corresponding to sequence near the carboxy-terminus of human PEN2
Related Products:	
905-737-100	Nicastrin Polyclonal Antibody
NBA-102	APP Polyclonal Antibody
NBA-100	APP Monoclonal Antibody
NBA-104	Amyloid β Monoclonal Antibody

Background:

Presenilin, in addition to nicastrin, PEN2, and APH-1, forms the γ -secretase protein complex, a membrane-bound aspartyl protease that can cleave certain proteins at peptide bonds buried within the hydrophobic environment of the lipid bilayer. This cleavage is responsible for a key step in signaling from several cell-surface receptors, and is thought to be required for the generation of the neurotoxic amyloid peptides that are central to the pathogenesis of Alzheimer's disease^{1,2}. Like the tumor necrosis factor- α -converting enzyme (TACE) and the β -site cleavage enzyme (BACE) protease families, γ -secretase will cleave the amyloid precursor protein (APP), but within the intramembrane region of APP, resulting in either the non-toxic p3 (from the α and γ cleavage site) or the toxic A β amyloid peptide (from the β and γ cleavage site)³. It is thought that accumulation of the A β peptide is the precursor to Alzheimer's disease⁴.

References:

1. Weihofen, A. and Martoglio, B. (2003) Trends Cell Biol. **13**, 71-78.
2. Periz, G. and Fortini, M.E. (2004) J Neurosci. Res. **77**, 309-322.
3. Selkoe, D.J. (1998) Trends Cell Biol. **8**, 447-453.
4. Selkoe, S.J. (1999) Nature **399**, A23-31.



Western blot analysis of A-20 cell lysate with PEN2 Polyclonal Antibody at (A) 0.5 and (B) 1 µg/mL.