Presenilin-1 antibody (pAb)

Rabbit Anti-Human/Mouse/Rat Presenilin1

PromoKine

Instruction Manual

Catalog Number	PK-AB718-4203
Synonyms	Presenilin1 Antibody: PSEN1, PS1, Gamma-secretase subunit presenilin-1
Description	Presenilin1 was initially identified a marker of susceptibility to early-onset Alzheimer's disease. In addition to PEN2, nicastrin and APH-1, Presenilin1 forms the g-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. Like the tumor necrosis factor-a-converting enzyme (TACE) and the b-site cleavage enzyme (BACE) protease families, g-secretase will cleave the amyloid precursor protein (APP), but within the intramembrane region of APP, resulting in either the non-toxic p3 (from the a and g cleavage site) or the toxic Ab amyloid peptide (from the b and g cleavage site). It is thought that accumulation of the Ab peptide is the precursor to Alzheimer's disease. Multiple isoforms of presenilin1 are known to exist. This antibody has no cross-reactivity to presenilin2.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	Presenilin1 antibody was raised in rabbits against a 23 amino acid peptide from near the carboxy terminus of human presenilin1.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse, Rat
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C 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.
Applications	E, WB, IHC, IF lNote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined indivudually.
	Presenilin1 antibody can be used for detection of presenilin1 by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	Sherrington R, Rogaev EI, Liang Y, et al. Cloning of a gene bearing missense mutations in early-onset familial Alzheimer's disease. Nature 1995; 375:754-60. Weihofen A and Martoglio B. Intramembrane-cleaving proteases: controlled liberation of proteins and bioactive peptides. Trends Cell Biol. 2003; 13:71-8. Periz G and Fortini ME. Functional reconstitution of g-secretase through coordinated expression of presenilin, nicastrin, aph-1, and pen-2. J. Neurosci. Res. 2004; 77:309-22. Selkoe DJ. The cell biology of b-amyloid precursor protein and presenilin in Alzheimer's disease. Trends Cell Biol. 1998; 8:447-53.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4203P; Presenilin1 Peptide Cat.No. PK-AB718-1303; Human Brain Tissue Lysate

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