Goat (polyclonal) Anti-Human Presenilin-1 NH_2-Terminal Peptide Antiserum

PRODUCT ANALYSIS SHEET

Catalog Number:	AHB0181
Lot Number:	See product label
Quantity/Volume:	100 µL
Form of Antibody:	Processed whole goat serum
Preservation:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Immunogen:	A synthetic peptide corresponding to aa sequence 14-33 ($_{14}$AQMSEDNHLSNTVRSQNDNR$_{33}$) of the N-terminal of human presenilin-1 protein.
Target:	This antibody recognizes the intact 48 kDa presenilin-1 (PS-1) protein, as well as the N-terminal fragment of the cleaved form of PS-1. PS-1 is observed in brain and cells of neuronal origin. The PS-1 gene is located on chromosome 14. Mutations in PS-1 may be responsible for an early onset form of Alzheimer's disease (AD). PS-1 has now been identified as one of the γ-secretase proteases involved in cleaving the transmembrane domain of Amyloid Precursor Protein (APP) following α and β secretase cleavage. Along with its role in β-amyloid protein formation from APP, PS-1 also is responsible for proteolytic cleavage of the C-terminus of the intracellular protein, Notch1. This antiserum can routinely be used without further purification.
Species Reactivity:	Human. Other species were not tested.
Applications:	This antiserum is suitable for use in ELISA, immunohistochemistry and Western blot analysis.
Suggested Working Dilutions:	For ELISA, a dilution of ≥1:5,000 is recommended. For immunohistochemistry using formalin-fixed, paraffin-embedded sections, a dilution of ≥1:100 and paraformaldehyde-fixed, frozen sections, a dilution of ≥1:1,000 is recommended. For Western blots, a dilution of ≥1:1,000 is recommended. The optimal concentration should be determined for each specific application.
Recommended Positive Control:	Human SH-SY5Y neuroblastoma cell lysates.
Storage:	Store at 2-8ºC. For long term storage, apportion into working aliquots and store at –20ºC. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.
References:	Johnsingh, A. A., *et al.* (2000) Altered binding of mutated presinilin with cytoskeleton-interacting proteins. FEBS Letters 465:53-58.

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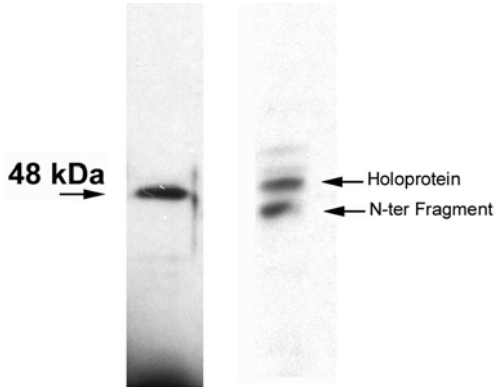
A B C

Immunofluorescent staining of cultured human SH-SY5Y neuroblastoma cells using the presenilin-1 antiserum (Figure A). Alzheimer's disease brain showing immunohistochemical staining of neurons (Figure B) and senile plaque (Figure C) in formalin-fixed, paraffin-embedded sections using the presenilin-1 antiserum at 1:300 dilution.



A. B.

Western blot analysis using the presenilin-1 antiserum at 1:1,000 dilution. Figure A. shows SH-SY5Y human neuroblastoma cells where the presenilin-1 protein is detected. Figure B. shows human brain hippocampus where the intact presenilin-1 holoprotein and the N-terminal cleavage fragment are detected.

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