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ProductInformation

Anti-phospho-APP [pThr⁶⁶⁸]

produced in rabbit, affinity isolated antibody

Catalog Number **A9103**

Synonym: Anti-phospho-Amyloid β (A4) Precursor Protein [pThr]⁶⁶⁸

Product Description

Anti-phospho-APP [pThr⁶⁶⁸] is produced in rabbit using as immunogen a synthetic phosphorylated peptide derived from the region of human APP that contains Thr⁶⁶⁸. The sequence is conserved in mouse, rat and frog. The antiserum is affinity purified using epitope-specific affinity chromatography, and is preadsorbed to remove any reactivity toward a non-phosphorylated APP.

Anti-phospho-APP [pThr⁶⁶⁸] specifically recognizes human APP phosphorylated at Thr⁶⁶⁸. The antibody cross-reacts with human APP. Mouse, rat and frog APP are 100% homologous.

APP is a ubiquitously expressed transmembrane protein that is sequentially cleaved by β -secretase and γ -secretase to release extracellular peptides such as the β -amyloid peptides, which are deposited in the brain in Alzheimer's disease.

APP exists in several isoforms ranging from 100-140 kDa, and is phosphorylated on various residues within the extracellular and cytoplasmic domains, affecting the proteolytic processing and secretion of the protein. Thr⁶⁶⁸ can be phosphorylated by cyclin-dependent kinase 5 (cdk5), GSK-3 β and JNK, and may play an important role in neurite outgrowth of differentiating neurons.

Reagent

Supplied as a solution in Dulbecco's phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.3, with 50% glycerol, 1.0 mg/ml BSA (IgG and protease free) and 0.05% sodium azide

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. Upon initial thawing, freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Do not store in frost-free freezers. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

One vial is sufficient for 10 immunoblots.

Immunoblotting: a recommended working dilution of 1:1000 is determined using CAD cells transfected with wild type vs. T668A mutant APP.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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3. Standen, C.L., et al., Phosphorylation of threonine (668) in the cytoplasmic domain of the Alzheimer's disease amyloid precursor protein by stress-activated protein kinase 1b (Jun N-terminal kinase-3)., *J. Neurochem.*, **76**, 316-320 (2001).
4. Selkoe, D.J., The cell biology of β -amyloid precursor protein and presenilin in Alzheimer's disease. *Trends Cell. Biol.*, **8**, 447-453 (1998).

AH,PHC 09/07-1