#6986 Store at -20°C

# Phospho-APP (Thr668) (D90B8) Rabbit mAb

Cell Signaling TECHNOLOGY®

☑ 100 µl
(10 western blots)

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**This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.**

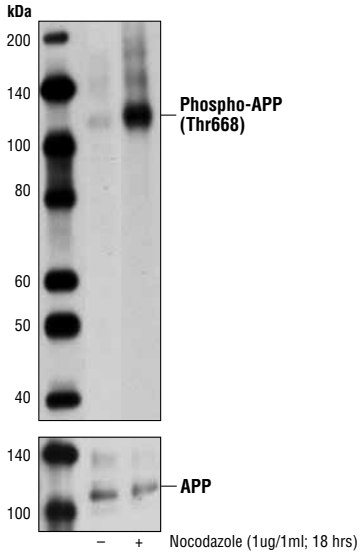
**Entrez-Gene ID** #351
**Swiss-Prot Acc.** #P05067

| Applications | Species Cross-Reactivity* | Molecular Wt. | Isotype |
|---|---|---|---|
| W, IP | H, M, R | 100-140 kDa | Rabbit IgG** |
| Endogenous | | | |

**Background:** Amyloid β (A4) precursor protein (APP) is a 100-140 kDa transmembrane glycoprotein that exists as several isoforms (1). The amino acid sequence of APP contains the amyloid domain (A-β), which can be released by a two-step proteolytic cleavage (1). The extracellular deposition and accumulation of the released A-β fragments form the main components of amyloid plaques in Alzheimer disease (1). APP can be phosphorylated at several sites, which may affect the proteolytic processing and secretion of this protein (2-5). The phosphorylation at Thr668 (at a position corresponding to the APP695 isoform) by cyclin-dependent kinase is cell cycle dependent and peaks during G2/M-phase (4). The APP Thr668 phosphorylated form exists in adult rat brain and correlates with cultured neuronal differentiation (5,6).

**Specificity/Sensitivity:** Phospho-APP (Thr668) (D90B8) Rabbit mAb detects different isoforms of endogenous amyloid β (A4) precursor protein only when phosphorylated at Thr668 (or the corresponding position of other isoforms).

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr668 of human APP protein.




*Western blot analysis of extracts from HeLa cells, untreated or nocodazole-treated (1 µg/ml, 18 hr) using Phospho-APP (Thr668) (D90B8) Rabbit mAb (upper) or APP Antibody #2452 (lower).*

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

| | |
|---|---|
| Western blotting | 1:1000 |
| Immunoprecipitation | 1:50 |

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

**Please visit www.cellsignal.com for a complete listing of recommended companion products.**

**Background References:**

(1) Selkoe, D.J. (1996) *J Biol Chem* 271, 18295-8.
(2) Caporaso, G.L. et al. (1992) *Proc Natl Acad Sci USA* 89, 3055-9.
(3) Hung, A.Y. and Selkoe, D.J. (1994) *EMBO J* 13, 534-42.
(4) Suzuki, T. et al. (1994) *EMBO J* 13, 1114-22.
(5) Ando, K. et al. (1999) *J Neurosci* 19, 4421-7.
(6) Iijima, K. et al. (2000) *J Neurochem* 75, 1085-91.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
**Species Cross-Reactivity Key:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

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