

#2452 Store at -20°C

APP Antibody

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignaling.com
Support ■ 877-678-TECH (8324)
info@cellsignaling.com
Web ■ www.cellsignaling.com

rev 06/10/10

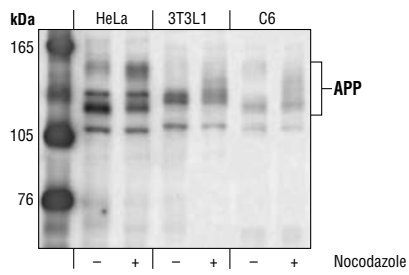
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

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

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC Endogenous	H, M, R, Mk	100 to 140 kDa	Rabbit**

Background: Amyloid β (A4) precursor protein (APP) is a 100-140 kDa transmembrane glycoprotein existing 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's disease (1). APP can be phosphorylated at several sites, which may affect the proteolytic processing and secretion pathway 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 (G2/M-phase) (4). The APP Thr668 phosphorylated form exists in adult rat brain and correlates with cultured neuronal differentiation (5,6).

Specificity/Sensitivity: APP Antibody detects endogenous levels of several isoforms of both mature and immature amyloid β (A4) precursor protein, including APP695, APP770 and APP751.



Western blot analysis of extracts from HeLa (human), 3T3L1 (mouse) or C6 (rat) cells, untreated or nocodazole-treated (1 µg/ml, 16-18 hours), using APP Antibody.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr668 of human APP695. Antibodies are purified by protein A and peptide affinity chromatography.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. 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:

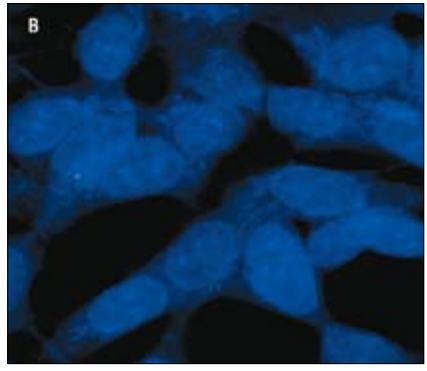
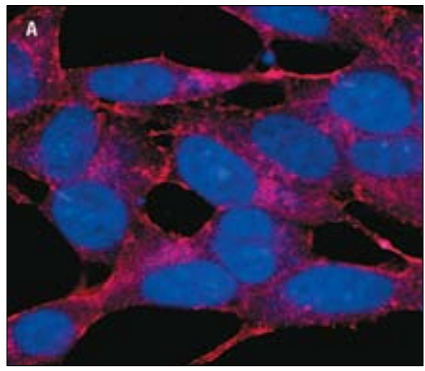
Western Blotting	1:1000
Immunofluorescence (IF-IC)	1:50

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

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

Background References:

- (1) Selkoe, D.J. (1996) *J. Biol. Chem.* 271, 18295-18298.
- (2) Caporaso, G.L. et al. (1992) *Proc. Natl. Acad. Sci. USA* 89, 3055-3059.
- (3) Hung, A.Y. and Selkoe, D.J. (1994) *EMBO J.* 13, 534-542.
- (4) Suzuki, T. et al. (1994) *EMBO J.* 13, 1114-1122.
- (5) Ando, K. et al. (1999) *J. Neurosci.* 19, 4421-4427.
- (6) Iijima, K.I. et al. (2000) *J. Neurochem.* 75, 1085-1091



Confocal microscopic images of SH-SY5Y cells showing cytoplasmic and ER stain with APP Antibody (A, red) compared to an isotype control (B). Blue pseudocolor = DRAQ5® 4084 (fluorescent DNA dye).

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.

DRAQ5® is a registered trademark of Biostatus Limited.

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.