

# APP/ $\beta$ -Amyloid (NAB228) Mouse mAb

✓ 100  $\mu$ l  
(10 western blots)

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

rev. 03/01/11

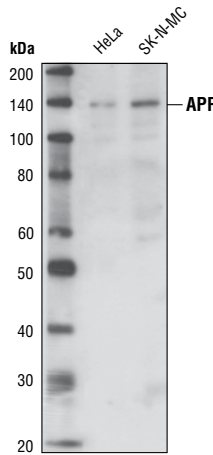
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-P Endogenous	H, Mk, B, (Pg, Dg)	100–140 kDa	Mouse IgG2a**

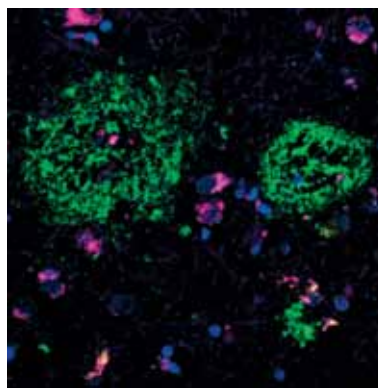
**Background:** Amyloid  $\beta$  (A $\beta$ ) precursor protein (APP) is a 100–140 kDa transmembrane glycoprotein existing as several isoforms (1). The amino acid sequence of APP contains the amyloid domain (A- $\beta$ ), which can be released by a two-step proteolytic cleavage (1). The extracellular deposition and accumulation of the released A- $\beta$  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/ $\beta$ -Amyloid (NAB228) Mouse mAb detects endogenous levels of APP/ $\beta$ -Amyloid protein. Although this antibody recognizes both the phospho and non-phospho forms of the protein, it has been shown to prefer the phosphorylated form in some systems.

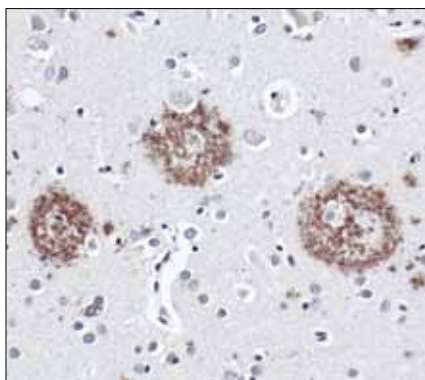
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with beta-amyloid and the epitope maps to the amino terminus of beta-amyloid (Lee et al., 2003).



Western blot analysis of extracts from HeLa and SK-N-MC cells, using APP/ $\beta$ -Amyloid (NAB228) Mouse mAb.



Confocal immunofluorescent analysis of paraffin-embedded human Alzheimer's brain using APP/ $\beta$ -Amyloid (NAB228) Mouse mAb (green) and Phospho-p44/42 MAPK (Thr202/Tyr204) (197G2) Rabbit mAb #4377 (red). Blue pseudocolor = DRAQ5® 4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded Alzheimer's brain, using APP/ $\beta$ -Amyloid (NAB228) Mouse mAb.

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

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

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

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

**Recommended Antibody Dilutions:**

Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS
Immunofluorescence (Paraffin)	1:50

For application specific protocols please see the web page for this product at [www.cellsignaling.com](http://www.cellsignaling.com).

Please visit [www.cellsignaling.com](http://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

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

DRAQ5® is a registered trademark of Biostatus Limited.