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#85314

# β-Amyloid Antibody Sampler Kit

Cell Signaling  
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orders@cellsignal.comEntrez-Gene ID #351  
UniProt ID #P05067

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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
APP Rabbit Antibody	2452	20 µl	100-140 kDa	Rabbit
β-Amyloid (D54D2) XP® Rabbit mAb	8243	20 µl	5 kDa	Rabbit IgG
β-Amyloid (1-37) (D2A6H) Rabbit mAb	12467	20 µl	4 kDa	Rabbit IgG
β-Amyloid (1-39) (D5Y9L) Rabbit mAb	12077	20 µl	4 kDa	Rabbit IgG
β-Amyloid (1-40) (D8Q7I) Rabbit mAb	12990	20 µl	4 kDa	Rabbit IgG
β-Amyloid (1-42) (D3E10) Rabbit mAb	12843	20 µl	4 kDa	Rabbit IgG
β-Amyloid (pE3 Peptide) (D5N5H) Rabbit mAb	14975	20 µl	4 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

**Description:** The β-Amyloid Antibody Sampler Kit provides an economical means of detecting APP and APP unmodified/modified fragments using total antibodies. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

**Background:** Amyloid β (Aβ) precursor protein (APP) is a 100-140 kDa transmembrane glycoprotein that exists as several isoforms (1). The amino acid sequence of APP contains an amyloid domain, which can be processed and released by two-step proteolytic cleavage (1). The extracellular deposition and accumulation of the released Aβ fragments form the main components of amyloid plaques in Alzheimer's disease (1). Several fragments corresponding to progressive APP processing at alternative cleavage sites have been identified (2). These include Aβ (1-37), Aβ (1-39), Aβ (1-40), and Aβ (1-42) (2). These fragments can also be N-terminally modified to generate pyroglutamate-3 Aβ (pE3-peptide) (3). Total Aβ antibodies are used to detect and examine relative levels of individual Aβ fragments.

**Background References:**

- (1) Selkoe, D.J. (1996) *J Biol Chem* 271, 18295-8.
- (2) Selkoe, D.J. and Hardy, J. (2016) *EMBO Mol Med* 8, 595-608.
- (3) Saido, T.C. et al. (1995) *Neuron* 14, 457-66.

**Specificity/Sensitivity:** Each antibody in the β-Amyloid Antibody Sampler Kit specifically detects either total APP protein or indicated modified/unmodified APP fragment. APP Antibody detects endogenous levels of several isoforms of both mature and immature amyloid beta (A4) precursor protein (APP), including APP695, APP770, and APP751. β-Amyloid (1-42) (D3E10) Rabbit mAb recognizes endogenous levels of total Aβ-42 protein and may cross-react with Aβ-43 peptide. β-Amyloid (1-40) (D8Q7I), and β-Amyloid (1-37) (D2A6H) Rabbit mAbs recognize indicated Aβ fragments using human tissue and human APP transgenic mouse model tissue. The recommended usage of β-Amyloid (1-39) (D5Y9L) Rabbit mAb is limited to specifically detecting recombinant Aβ-39 fragments. β-Amyloid (D54D2) XP® Rabbit mAb recognizes endogenous levels of total human Aβ peptide using human tissue and human APP transgenic mouse model tissue. β-Amyloid (pE3 Peptide) (D5N5H) Rabbit mAb recognizes endogenous levels of pE3 Aβ peptide in human tissue and human APP transgenic mouse models.

**Source/Purification:** APP Antibody is a polyclonal antibody produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Thr668 of human APP695 protein. Antibodies are purified by protein A and peptide affinity chromatography. β-Amyloid fragment monoclonal antibodies are produced by immunizing rabbits with synthetic peptides corresponding to residues at the carboxy terminus of each indicated human β-Amyloid fragment. β-Amyloid (D54D2) XP® Rabbit mAb is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human β-amyloid peptide (Aβ). β-Amyloid (pE3 Peptide) (D5N5H) Rabbit mAb is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human β-amyloid (pE3) peptide.

**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.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

**For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)**

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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** 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.