

Store at
-20°C

β -Amyloid (1-40) Matched Antibody Pair

#20849

**Support:** +1-978-867-2388 (U.S.)
cellsignal.com/support**Orders:** 877-616-2355 (U.S.)
orders@cellsignal.com**Entrez-Gene ID** #351
UniProt ID #P05067**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Isotype
β -Amyloid (1-40) (D8Q7I) Rabbit mAb (BSA and Azide Free)	72738	100 μ g	Rabbit IgG
β -Amyloid (D3D2N) Mouse mAb (BSA and Azide Free)	37372	100 μ g	Mouse IgG1

Species Reactivity: H

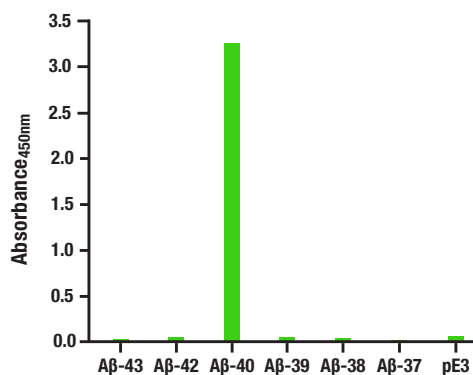
Description: The β -Amyloid (1-40) Matched Antibody Pair is ideal for use with immunoassay technologies and high throughput ELISA platforms requiring antibody pairs with specialized or custom antibody labeling. Labels include fluorophores, lanthanides, biotin, and beads. Platforms requiring conjugated Matched Antibody Pairs include MSD, Quanterix Simoa, Alpha Technology (AlphaScreen, AlphaLISA, LANCE, HTRF), and Luminex.

Learn how Matched Antibody Pairs move your projects forward, faster at cst-science.com/matched-antibody-pairs.

Background: Amyloid β ($A\beta$) 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, 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 of this protein (2-5). Phosphorylation at Thr668 (a position corresponding to the APP695 isoform) by cyclin-dependent kinase is cell-cycle dependent and peaks during G2/M phase (4). APP phosphorylated at Thr668 exists in adult rat brain and correlates with cultured neuronal differentiation (5,6).

Specificity/Sensitivity: This kit detects proteins from the indicated species, as determined through in-house testing, but may also detect homologous proteins from other species.

Formulation: Supplied in 1X PBS (10 mM Na_2HPO_4 , 3 mM KCl, 2 mM KH_2PO_4 , and 140 mM NaCl (pH 7.8)). BSA and Azide Free.



Data using β -Amyloid (1-40) Matched Antibody Pair #20849 are shown. The two antibodies function as a capture-target-detection sandwich (#72738 and #37372, respectively) to detect human $A\beta$ -40 but not $A\beta$ -43, $A\beta$ -42, $A\beta$ -39, $A\beta$ -38, $A\beta$ -37, and pE3 peptides, as shown in the figure.

Storage: Store at -20°C. This product will freeze at -20°C so it is recommended to aliquot into single-use vials to avoid multiple freeze/thaw cycles. A slight precipitate may be present and can be dissolved by gently vortexing. This will not interfere with antibody performance.

Please visit cellsignal.com for validation data and a complete listing of recommended companion products.

Directions for Use: Matched Antibody Pairs include capture and detection antibodies to non-overlapping epitopes. Optimal dilutions/concentrations should be determined by the end user.

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.

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