β-Amyloid (D54D2) XP[®] Rabbit mAb (Alexa Fluor[®] 488 Conjugate)



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: Reactivity: Sensitivity: Source/Isotype: **UniProt ID:** Entrez-Gene Id: IF-F Н Endogenous Rabbit IgG #P05067 351 **Product Usage Application** Dilution Information Immunofluorescence (Frozen) 1:50 - 1:100

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the **Storage** antibody. Protect from light. Do not freeze.

Specificity / Sensitivity β-Amyloid (D54D2) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total β -amyloid peptide (A β). The antibody detects several isoforms of A β , such as A β -37, A β -38, A β -39, A β -40,

and Aβ-42. This product detects transgenically expressed human APP in mouse models.

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to Source / Purification

residues near the amino terminus of human β-amyloid peptide (Aβ).

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-**Product Description** house for direct immunofluorescent analysis in mouse cells. The antibody is expected to exhibit the same

species cross-reactivity as the unconjugated β -Amyloid (D54D2) XP[®] Rabbit mAb #8243.

Amyloid β (A β) precursor protein (APP) is a 100-140 kDa transmembrane glycoprotein that exists as **Background**

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 Aβ 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 cyclindependent 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).

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. lijima, K. et al. (2000) J Neurochem 75, 1085-91.

Species reactivity is determined by testing in at least one approved application (e.g., western blot). **Species Reactivity**

Applications Key IF-F: Immunofluorescence (Frozen)

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster **Cross-Reactivity Key**

X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse

GP: Guinea Pig Rab: rabbit All: all species expected

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