Revision 1

Store at -20C

#29729

APP (E5X2B) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F, IF-IC	H	Endogenous	9, 100-140	Rabbit IgG	#P05067	351

Product Usage Information

Application	Dilution
Immunofluorescence (Frozen)	1:100 - 1:200
Immunofluorescence (Immunocytochemistry)	1:100 - 1:200

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.*

Specificity/Sensitivity

APP (E5X2B) Rabbit mAb recognizes endogenous levels of total APP protein. The antigen sequence of this product is 100% homologous to the corresponding mouse sequence, however no signal was seen in wild type mouse brain, potentially due to sensitivity.

Species predicted to react based on 100% sequence homology

Mouse

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human APP protein.

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 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 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).

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.

Species Reactivity

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

Applications Key

IF-F: Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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