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RABBIT ANTI-Tau phosphoSerine 262 POLYCLONAL ANTIBODY

CATALOG NUMBER: AB9656 **QUANTITY:** 100 µL (10 blots)

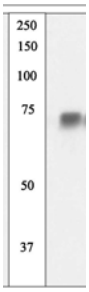
LOT NUMBER:

BACKGROUND: Tau is a neuronal microtubule-associated protein found predominantly on axons and functions to promote tubulin polymerization and stabilize microtubules. Tau, in its hyperphosphorylated form, is the major component of paired helical filaments (PHF), the building block of neurofibrillary lesions in Alzheimer's disease (AD) brain. Hyperphosphorylated Tau is also found in neurofibrillary lesions in a range of other central nervous system disorders. Hyperphosphorylation impairs the microtubule binding function of Tau, resulting in the destabilization of microtubules in AD brains, ultimately leading to the degeneration of the affected neurons. Numerous serine/threonine kinases, including GSK-3β, protein kinase A (PKA), cyclin-dependent kinase 5 (cdk5) and casein kinase II (CK2), phosphorylate Tau. Serine 262 can be phosphorylated by GSK-3β, PKA, CamKII, MARK and has been found to be a major site in AD brain.

SPECIFICITY: Tau phosphoSerine 262. The antibody recognizes Tau pSerine 262 in samples of recombinant human Tau treated with PKA for 45 minutes. The reactivity of the antibody is blocked with the pSerine 262 peptide but not the non-phosphopeptide or a generic phosphoSerine-containing peptide.

IMMUNOGEN: Synthetic peptide of amino acids surrounding the phosphoSerine 262 site of human Tau.

APPLICATIONS: Western blot: 1:1,000. Suggested blocking buffer is 5% BSA-TBST overnight at 2-8°C. Suggested antibody dilution buffer is 3% BSA-TBST. Suggested antibody incubation time is 2 hours at room temperature.



Western Blot of recombinant human tau treated with PKA for 45 minutes.

Optimal working dilutions must be determined by the end user.

SPECIES REACTIVITY: Human. Other species have not been tested. The immunogen is 92% conserved in rat and mouse and 100% conserved in monkey, goat, bovine and baboon.

FORMAT: Affinity purified immunoglobulin

PRESENTATION: Liquid in Dulbecco's PBS (without Mg^{2+} and Ca^{2+}), pH 7.3, 50% glycerol with 1.0 mg/mL BSA and 0.05% sodium azide.

STORAGE/HANDLING: Maintain at -20°C in undiluted for up to 6 months after date of receipt. Avoid repeated freeze/thaw cycles. Do not store in a self defrosting freezer.

RELATED REFERENCES:

Liu, F., et al. (2005) Dephosphorylation of Tau by protein phosphatase 5. J. Biol. Chem. 280(3):1790-1796.

Liu, F., et al. (2004) O-GlcNAcylation regulates phosphorylation of tau: a mechanism involved in Alzheimer's disease. Proc. Nat'l. Acad. Sci. USA 101(29):10804-10809.

Liu, F., et al. (2002) Involvement of aberrant glycosylation in phosphorylation of tau by cdk5 and GSK-3beta. FEBS Lett. 530(1-3):209-214.

Liu, F., et al. (2002) Role of glycosylation in hyperphosphorylation of tau in Alzheimer's disease. FEBS Lett. 512:101-106.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

FOR RESEARCH USE ONLY; NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION