Anti-Phospho-Tau (S214) Antibody [JE66-83]



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat

Applications: WB

Molecular Wt: Predicted band size: 79 kDa

Clone number: JE66-83

Description: The tau proteins (abbreviated from tubulin associated unit are a group of six highly soluble

protein isoforms produced by alternative splicing from the gene MAPT (microtubule-associated protein tau). They have roles primarily in maintaining the stability of microtubules in axons and are abundant in the neurons of the central nervous system (CNS), where the cerebral cortex has the highest abundance. They are less common elsewhere but are also expressed at very low levels in CNS astrocytes and oligodendrocytes. Pathologies and dementias of the nervous system such as Alzheimer's disease and Parkinson's disease are associated with tau proteins that have become hyperphosphorylated insoluble aggregates called neurofibrillary tangles. The tau proteins were identified in 1975 as heat-stable proteins essential for microtubule assembly, and since then they have been characterized as

intrinsically disordered proteins.

Immunogen: Synthetic phosphopeptide corresponding to residues surrounding S214 of human Tau

protein.

Positive control: SH-SY5Y treated with 200nM Calyculin A and 1µM Okadaic Acid for 1 hour cell lysate.

Subcellular location: Cytoplasm, cytosol, Cell membrane, cytoskeleton, Cell projection, axon, dendrite, Secreted.

Database links: SwissProt: P10636-8 Human | P10637 Mouse | P19332 Rat

Recommended Dilutions:

WB 1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at $+4^{\circ}$ C after thawing. Aliquot store at -20° C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

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Images

kDa 250-150-150-100-55-42-35-25-14-GAPDH - + Calyculin A+Okadaic Acid **Fig1:** Western blot analysis of Phospho-Tau (S214) on different lysates with Rabbit anti-Phospho-Tau (S214) antibody (HA721797) at 1/1,000 dilution.

Lane 1: SH-SY5Y cell lysate

Lane 2: SH-SY5Y treated with 200nM Calyculin A and 1µM

Okadaic Acid for 1 hour cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 79 kDa Observed band size: 40-55 kDa

Exposure time: 5 minutes;

4-20% SDS-PAGE gel.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Karikari TK et al. Blood phospho-tau in Alzheimer disease: analysis, interpretation, and clinical utility. Nat Rev Neurol. 2022 Jul
- 2. Palmqvist S et al. Prediction of future Alzheimer's disease dementia using plasma phospho-tau combined with other accessible measures. Nat Med. 2021 Jun

