Anti-Tau Antibody [PSH05-50] - BSA and Azide free

HA751009

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, IP
Molecular Wt:	Predicted band size: 79 kDa
Clone number:	PSH05-50

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 peptide within human Tau aa 571-620 / 758.

Positive control: Mouse brain tissue lysate, rat brain tissue lysate, rat kidney tissue, rat colon tissue.

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

Database links: SwissProt: P10637 Mouse | P19332 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IHC-P	1:5,000
IF-Tissue	1:200-1:1,000
IP	1-2μg/sample

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

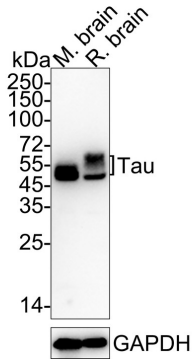

Fig1: Western blot analysis of Tau on different lysates with Rabbit anti-Tau antibody (HA751009) at 1/1,000 dilution.

Lane 1: Mouse brain tissue lysate (hot lysis)
Lane 2: Rat brain tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 79 kDa
Observed band size: 50-70 kDa

Exposure time: 1 minute 50 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751009) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

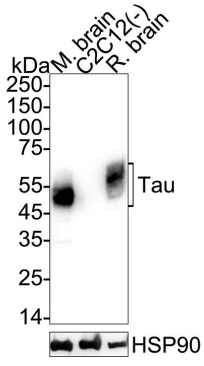

Fig2: Western blot analysis of Tau on different lysates with Rabbit anti-Tau antibody (HA751009) at 1/5,000 dilution.

Lane 1: Mouse brain tissue lysate (40 µg/Lane)
Lane 2: HeLa cell lysate (negative) (20 µg/Lane)
Lane 3: Rat brain tissue lysate (no heat) (40 µg/Lane)

Notice: no heat means the lysate is not boiled.

Predicted band size: 79 kDa
Observed band size: 50-70 kDa

Exposure time: 14 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA751009) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

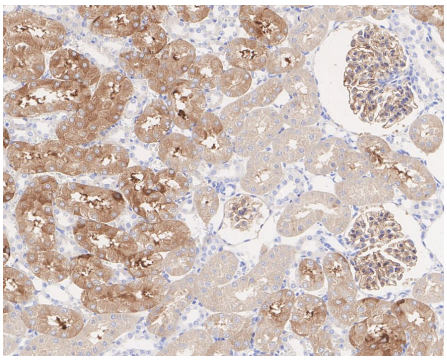

Fig3: Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Rabbit anti-Tau antibody (HA751009) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751009) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

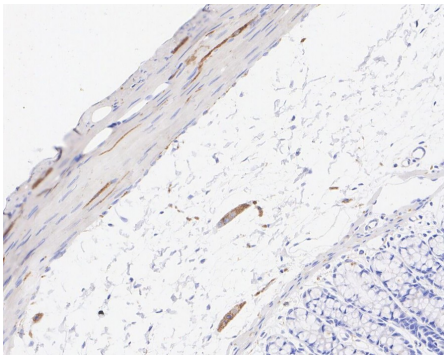

Fig4: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-Tau antibody (HA751009) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA751009) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

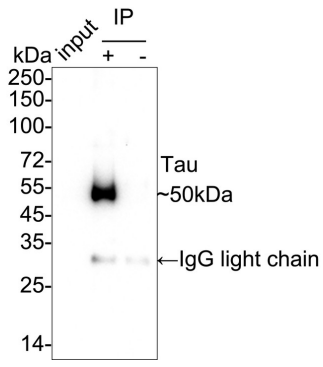

Fig5: Tau was immunoprecipitated from 0.2 mg mouse brain tissue lysate with HA751009 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA751009 at 1/5,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: Mouse brain tissue lysate (input)
Lane 2: HA751009 IP in mouse brain tissue lysate
Lane 3: Rabbit IgG instead of HA751009 in mouse brain tissue lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 50 seconds; ECL: K1802

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