

**Tau Antibody (Phospho-Ser<sup>199</sup>), pAb, Rabbit****Cat. No.:** A00894-40**Size:** 40 µg**Synonyms:** Rabbit Anti-Tau pS199 pAb;**Description:**

Tau is a microtubule-associated phosphoprotein (MAP), localized in neuronal axons. It promotes tubulin polymerization and stabilizes microtubules. Tau proteins constitute a family of six isoforms which range from 352 to 441 amino acids. The tau variants differ from each other by the presence of either three or four repeat-regions in the carboxy-terminal part of the molecule and the absence or presence of one or two inserts in the amino-terminal part.

Tau is hyperphosphorylated by ERK, GSK-3, TPKII and CDK5, at least thirty phosphorylation sites have been described, including Thr39, Ser46, Thr50, Thr69, Thr153, Thr175, Thr181, Ser198, Ser199, Ser202, Thr205, Ser208, Ser210, Thr212, Ser214, Thr217, Thr231, Ser235, Ser237, Ser241, Ser262, Ser285, Ser305, Ser324, Ser352, Ser356, Ser396, Ser400, Thr403, Ser404, Ser409, Ser412, Ser413, Ser416 and Ser422. Specifically, TPKII phosphorylates serines 202 and 404. GSK-3β transfection phosphorylates serines 199, 202, 235, 396, 404 and 413, and threonines 205 and 231. These sites are among the major abnormal phosphorylation sites of Tau. Phosphorylation on these sites reduces the ability of a given Tau species to promote microtubule self-assembly. Hyperphosphorylated Tau is the major protein of the paired helical filaments (PHFs), which make up the pathological neurofibrillary tangles of Alzheimer's disease (AD). The PHFs are also found in the lesions of other central nervous system disorders.

GenScript **Rabbit Anti-Tau (Phospho-Ser<sup>199</sup>) Polyclonal Antibody** is developed in rabbit using a synthetic phosphopeptide (KLH-coupled) corresponding to residues surrounding Ser 199 of human Tau.

**Immunogen:** Synthetic phospho-peptide (KLH-coupled)

corresponding to residues surrounding Ser 199 of human Tau

**Host:** Rabbit**Antigen Synonyms:** Human**Conjugation:** Unconjugated**Formulation:**

0.5 mg/ml in PBS, pH 7.4, containing 30% glycerol, and 0.02% sodium azide

**Ig Subclass:** Rabbit IgG**Specificity:** GenScript Rabbit Anti-Tau (Phospho-Ser<sup>199</sup>) Polyclonal Antibody detects endogenous levels of Tau only when phosphorylated at serine 199.**Purification:** The antibody was purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide and cross-adsorbed with the corresponding non-phosphopeptide.**Applications:**

Working concentrations for specific applications should be determined by the investigator. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the method of detection, temperature, the length of the incubations, and other factors. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**ELISA:** 0.05-0.2 µg/ml**Western blot:** 0.1-1 µg/ml**Other applications:** user-optimized**Species Reactivity:** Human, mouse, and rat**Storage:**

The antibody is stable for 2-3 weeks if stored at 2-8°C. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.