DATASHEET
Version: 2016-08-17

Tau Antibody (Ser^{422}), pAb, Rabbit

Cat. No.: A01051-40

Size: 40 μg

Synonyms: Rabbit Anti-Tau (Ab-422) Polyclonal Antibody;

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 in size 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 portion.
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 (Ser^{422}) Polyclonal Antibody** is developed in rabbit using a synthetic peptide (KLH-coupled) corresponding to residues surrounding serine 422 of human tau.

Immunogen: Synthetic peptide (KLH-coupled) corresponding to residues surrounding serine 422 of human tau

Host: Rabbit

Antigen Synonyms: Human

Conjugation: Unconjugated

Predicated Band Size:

85 kD

Observed Band Size:

85 kD

Formulation:

0.5 mg/ml, lyophilized with PBS, pH 7.4, containing 0.02% sodium azide

Ig Subclass: Rabbit IgG

Specificity: GenScript Rabbit Anti-Tau (Ser^{422}) Polyclonal Antibody detects human tau protein, not yet tested for other species.

Purification: Immunoaffinity chromatography

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: 0.5-2 μg/ml
Other applications: user optimized

Species Reactivity: Human

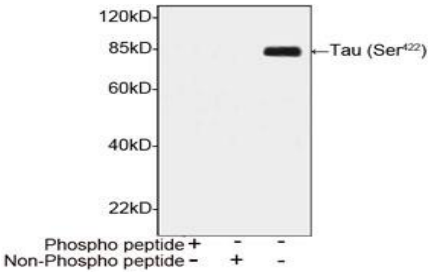
Reconstitution:

Reconstitute the lyophilized powder with deionized water (or equivalent) to an antibody concentration of 0.5 mg/ml.

Storage:

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

Example



Western blot analysis of human recombinant tau fusion protein using Tau Antibody (Ser^{422}), pAb, Rabbit (GenScript, A01051, 1μg/ml)
The signal was developed with Goat Anti-Rabbit IgG (H&L) [HRP] Polyclonal Antibody (GenScript, A00098) and LumiSensor™ HRP Substrate Kit (GenScript, L00221)
Predicted Size: 85 kD
Observed Size: 85 kD