

**Anti-Tau [pS199]
Rabbit Polyclonal Antibody
Ref. 4BDX-1502**

Biomolecule

Anti-Tau [pS199]
rabbit polyclonal antibody

Size

80 µl

Formulation

Rabbit serum diluted in
glycerol with 0.05% sodium
azide

Storage

+4°C / -20°C

Immunogen

Peptide

Specificity

Anti-Tau phosphorylated
at serine 199

Cross-reactivity

Human, Mouse, Rat

Applications

WB, IHC, IF

• **Preparation**

This polyserum was obtained by immunizing a rabbit with a 12 amino acid peptide containing the phosphorylated serine 199 (SGYSSPGSPGT). The phosphorylated threonine is underlined.

• **Specificity**

Determined by its ability to recognise human Tau phosphorylated at serine 199.

• **Storage**

Store at +4°C for short term use (1-2 weeks) - Store at -20°C for long term use.

• **Applications**

Recommended concentration of use are:

Western-blot: 1:4000 in Tris HCl pH 8.0 Tween-20 0.05% and 5% dry skimmed milk (working with cell and tissue).

IHC /IF: 1:200 in PBS with 5% BSA (working with cell, frozen and paraffin embedded tissue).

• General information

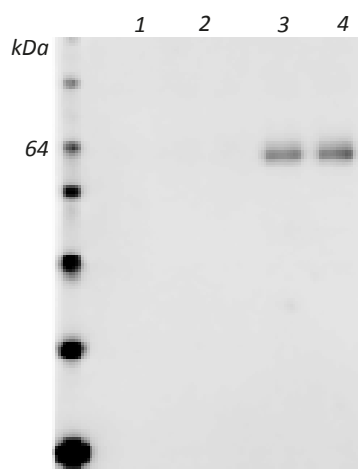
Tau proteins are encoded by a single gene *MAPT* (Gene ID: 4137). They belong to the family of microtubule-associated proteins. Neurofibrillary degeneration is characterized by an accumulation of fibrils made of hyper and abnormally phosphorylated Tau proteins. The Tau phosphorylation at serine 199 is an indicator of the early step of neurofibrillary degeneration. On human brain tissue or in animal models of tauopathies, this antibody detects specifically neurons in neurofibrillary degeneration. The serine 199 is phosphorylated by the following kinases: CDK5 (cyclin dependent kinase 5), CK2 (casein kinase 2), PKA (protein kinase A), GSK3 (glycogen synthase kinase 3), ERK/MAPK (mitogen activated kinases) and MARK (Microtubule-associated protein/microtubule affinity-regulating kinase).

• References

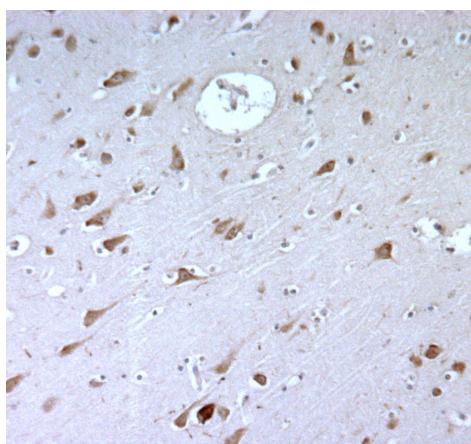
Troquier L, Caillierez R, Burnouf S, Fernandez-Gomez FJ, Grosjean ME, Zommer N, Sergeant N, Schraen-Maschke S, Blum D and Buee L (2012) Targeting phospho-Ser422 by active Tau Immunotherapy in the THY-Tau22 mouse model: a suitable therapeutic approach. Curr Alzheimer Res. 9(4):397-405.

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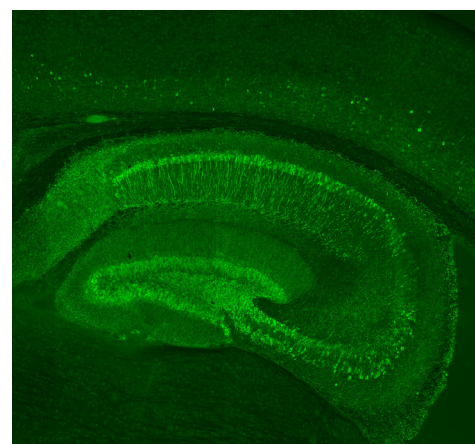
• Application examples



Western-blotting of Tau at phospho-serine 199 in SY5Y Tau inducible expressing cells (1,2: non induced ; 3,4: induced)



Immunohistochemistry of neurofibrillary degeneration in Alzheimer brain tissue



Immunofluorescence of hyperphosphorylated Tau at phospho-serine 199 in mouse Thy-Tau22

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