Data Sheet (Cat.No.TMAH-00920)

Anti-Phospho-MAPT (Ser199) Antibody (4M12)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4M12
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. IHC image of TMAH-00920 diluted at 1:50 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.10% DAB. 2. Overlay Peak curve showing SH-SY5Y cells stained with TMAH-00920 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1μg/1*10^6 cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4°C.Control antibody (green line) was rabbit IgG (1μg/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.
Application:	ELISA,FCM,IHC
Recommended	IHC:1:50-1:200; FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human MAPT
Antigen Species:	Human
Gene ID:	4137
Uniprot ID:	P10636
Synonyms:	Neurofibrillary tangle protein;MAPT (p-Ser199);p-MAPT (Ser199);Paired helical filament-tau;Phospho-MAPT (S199);Microtubule-associated protein tau;p-MAPT (S199);MAPTL;MTBT1;MAPT (p-S199);TAU and MAPT
Biology Area:	Neuroscience, Signal transduction

Research Background

Promotes microtubule assembly and stability, and might be involved in the establishment and maintenance of

neuronal polarity. The C-terminus binds axonal microtubules while the N-terminus binds neural plasma membrane components, suggesting that tau functions as a linker protein between both. Axonal polarity is predetermined by TAU/MAPT localization (in the neuronal cell) in the domain of the cell body defined by the centrosome. The short isoforms allow plasticity of the cytoskeleton whereas the longer isoforms may preferentially play a role in its stabilization.

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