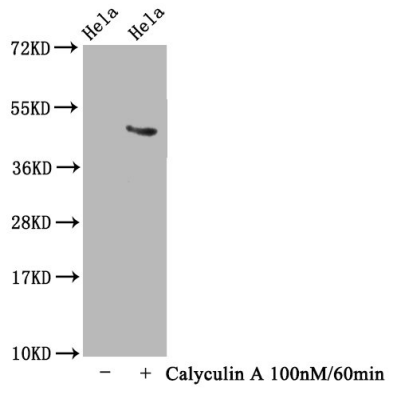
Phospho-MAPT (T231) Recombinant Monoclonal Antibody

Product Code	CSB-RA013481A231phHU
Abbreviation	Microtubule-associated protein tau
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P10636
Immunogen	A synthesized peptide derived from Human Phospho-MAPT (T231)
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Microtubule-associated protein tau, Neurofibrillary tangle protein, Paired helical filament-tau, PHF-tau, MAPT, MAPTL, MTBT1, TAU
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	MAPT
Clone No.	1G9
Image	



Western Blot
Positive WB detected in Hela whole cell lysate(treated with Calyculin A or not)
All lanes Phospho-MAPT antibody at 1.63μg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 46 KDa
Observed band size: 46 KDa

Description

Phospho-MAPT (T231) antibody CSB-RA013481A231phHU is a recombinant monoclonal antibody produced from the expression of the plasmids that were constructed by the pT231-MAPT monoclonal antibody (generated from animals with the synthesized peptide derived from human phospho-MAPT (T231) immunization) DNA sequence in cell lines. The phospho-MAPT (T231) antibody was purified through affinity- chromatography method. It is a rabbit IgG antibody. It is recommended for the detection of human MAPT phosphorylated at T231 in ELISA and WB analyses.

Tau's ability to bind and assemble microtubules (MTs) is regulated by phosphorylation and other posttranslational modifications. Tau phosphorylation reduces its affinity for MTs and eliminates its capacity to drive MT polymerization in general, but the specific consequences vary depending on the number and position of phosphorylation sites. Phosphorylated T231 selectively forms a salt bridge with R230 that can compete with the buildup of intermolecular salt bridges to tubulin.