SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Phospho-MAP2 (Thr1613/1619)antibody

Catalog Number: SL16042R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Phospho-MAP2 (Thr1613/1619)
Immunogen:	KLH conjugated synthesised phosphopeptide derived from human MAP2 around the phosphorylation site of Thr1613 and Thr1619: SR(p-T)PGTPG(p-T)PS
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 1M PBS, pH 7.4 Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=2ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Cow, Horse, Rabbit)
Predicted MW.:	70/201kDa
Subcellular Location:	cytoplasmic
Background:	MAP2 is the major microtubule associated protein of brain tissue. There are three forms of MAP2; two are similarily sized with apparent molecular weights of 280 kDa (MAP2a and MAP2b) and the third with a lower molecular weight of 70 kDa (MAP2c). In the newborn rat brain, MAP2b and MAP2c are present, while MAP2a is absent. Between postnatal days 10 and 20, MAP2a appears. At the same time, the level of MAP2c drops by 10-fold. This change happens during the period when dendrite growth is completed and when neurons have reached their mature morphology.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	MAP2 is degraded by a Cathepsin D-like protease in the brain of aged rats. There is some indication that MAP2 is expressed at higher levels in some types of neurons than in other types. MAP2 is known to promote microtubule assembly and to form side-arms on microtubules. It also interacts with neurofilaments, actin, and other elements of the cytoskeleton. **Function:** The exact function of MAP2 is unknown but MAPs may stabilize the microtubules against depolymerization. They also seem to have a stiffening effect on microtubules. **Subcellular Location:** Cytoplasm, cytoskeleton (Probable). **Post-translational modifications:** Phosphorylated at serine residues in K-X-G-S motifs by MAP/microtubule affinity-regulating kinase (MARK1 or MARK2), causing detachment from microtubules, and their disassembly. MAP2A/c is phosphorylated. Isoform MAP2c is phosphorylated by FYN at Tyr-67. **Similarity:** Contains 3 Tau/MAP repeats. **Database links:** **Entrez Gene:** 4133 Human **Entrez Gene:** 17756 Mouse **Entrez Gene:** 25595 Rat Omim: 157130 Human **SwissProt:** P11137 Human **SwissProt:** P20357 Mouse **SwissProt:** P15146 Rat **Unigene:** 368281 Human **Unigene:** 256966 Mouse **Unigene:** 10484 Rat

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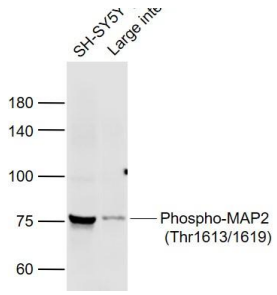
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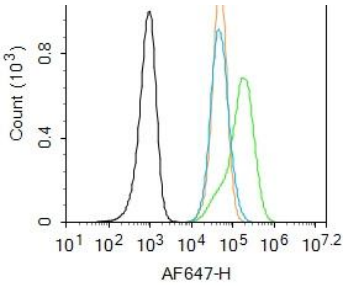
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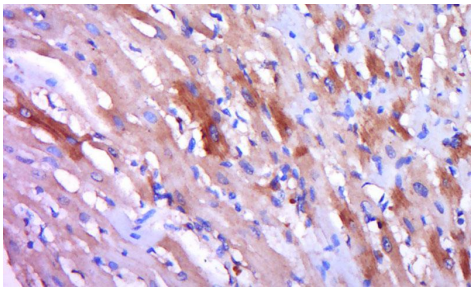
[VALIDATION IMAGES]



Sample:
Lane 1: SH-SY5Y (Human) Cell Lysate at 30 ug
Lane 2: Large intestine (Mouse) Lysate at 40 ug
Primary: Anti-Phospho-MAP2 (Thr1613/1619) (SL16042R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 280/70-82 kD
Observed band size: 75 kD



Blank control: SH-SY5Y.
Primary Antibody (green line): Rabbit Anti-Phospho-MAP2 (Thr1613/1619) antibody (SL10642R)
Dilution: 1μg /10^6 cells;
Isotype Control Antibody (orange line): Rabbit IgG .
Secondary Antibody : Goat anti-rabbit IgG-AF647
Dilution: 1μg /test.
Protocol
The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at-20℃.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Paraformaldehyde-fixed, paraffin embedded (Rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (P-MAP2 (Thr1613,1619)) Polyclonal Antibody, Unconjugated (SL16042R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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