SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-Phospho-CRMP2 (Thr514+Ser518)/Cy3 Conjugated antibody

Catalog Number: SL8284R-Cy3

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-Phospho-CRMP2 (Thr514+Ser518)/Cy3
Immunogen:	KLH conjugated synthesised phosphopeptide derived from human CRMP2 around the phosphorylation site of Thr514+Ser518
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Chicken,Pig,Cow,Horse,Sheep)
Background:	background: Collapsin response mediator proteins (CRMPs) are cytosolic phosphoproteins involved in neuronal differentiation and axonal guidance. CRMP2 was previously shown to mediate the repulsive effect of Sema3A on axons and to participate in axonal specification. The CRMPs appear to play a complex role in axon growth as well as microtubule dynamics and axon induction. CRMPs localize to the lamellipodia and filopodia of axonal growth cones, suggesting a role in axon guidance. Moreover, CRMP2 is upregulated after axotomy, and appears to increase the formation of axon-type processes from hippocampal neurons. CRMP2 has been reported to bind tubulin dimers directly and modulate microtubule assembly. CRMPs have also been implicated in the pathogenesis of a paraneoplastic neurologic syndrome. Interaction studies have implicated phospholipase D2 (PLD2), the cytosolic tyrosine kinase Fes, and intersectin in CRMP function.

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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	Hyperphosphorylation of CRMP2 is an early event in the progression of Alzheimer's disease. **Function:** Plays a role in neuronal development and polarity, as well as in axon growth and guidance, neuronal growth cone collapse and cell migration. Necessary for signaling by class 3 semaphorins and subsequent remodeling of the cytoskeleton (By similarity). Plays a role in neuron projection morphogenesis. **Subunit:** Homotetramer, and heterotetramer with CRMP1, DPYSL3, DPYSL4 or DPYSL5 (By similarity). Interacts through its C-terminus with the C-terminus of CYFIP1/SRA1. Interacts with HTR4 (By similarity). Interacts with CLN6. **Subcellular Location:** Cytoplasm. **Tissue Specificity:** Ubiquitous. **Post-translational modifications:** 3F4, a monoclonal antibody which strongly stains neurofibrillary tangles in Alzheimer disease brains, specifically labels DPYSL2 when phosphorylated on Ser-518, Ser-522 and Thr-509. Phosphorylation at Thr-514 by GSK3B abolishes tubulin-binding leading to destabilization of microtubule assembly in axons and neurodegeneration (By similarity). Phosphorylation by DYRK2 at Ser-522 is required for subsequent phosphorylation by GSK3B. **Similarity:** Belongs to the DHOase family. Hydantoinase/dihydropyrimidinase subfamily. **Database links:** **Entrez Gene:** 1808 Human **Entrez Gene:** 12934 Mouse **Entrez Gene:** 25416 Rat Omim: 602463 Human **SwissProt:** Q16555 Human **SwissProt:** O08553 Mouse **SwissProt:** P47942 Rat **Unigene:** 173381 Human **Unigene:** 593187 Human **Unigene:** 352648 Mouse **Unigene:** 475100 Mouse **Unigene:** 2889 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. CRMP2is a brain-specific protein，plays a very important role in axon growth and axon-dendrite development，CRMP2Regulates axon growth and

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	branching by binding to tubulin dimers and promoting microtubule assembly。

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