

For Research Use Only

CoraLite® Plus 488-conjugated MYPT1 Monoclonal antibody



Catalog Number:CL488-66506

Basic Information

Catalog Number: CL488-66506	GenBank Accession Number: BC111752	Purification Method: Protein A purification
Size: 1000 µg/ml	GeneID (NCBI): 4659	CloneNo.: 2A1A9
Source: Mouse	UNIPROT ID: O14974	Recommended Dilutions: IF 1:50-1:500
Isotype: IgG3	Full Name: protein phosphatase 1, regulatory (inhibitor) subunit 12A	Excitation/Emission maxima wavelengths: 493 nm / 522 nm
Immunogen Catalog Number: AG17496	Calculated MW: 1030 aa, 115 kDa	
	Observed MW: 115 kDa	

Applications

Tested Applications: IF/ICC	Positive Controls: IF : HeLa cells,
Species Specificity: Human, rat, mouse	

Background Information

Myosin phosphatase target subunit 1(MYPT1), which is also called PPP1R12A, is one of the subunits of myosin phosphatase. Myosin phosphatase regulates the interaction of actin and myosin downstream of the guanosine triphosphatase Rho. The small guanosine triphosphatase Rho is implicated in myosin light chain (MLC) phosphorylation, which results in contraction of smooth muscle and interaction of actin and myosin in nonmuscle cells. The guanosine triphosphate (GTP)-bound, active form of RhoA (GTP.RhoA) specifically interacted with the myosin-binding subunit (MBS) of myosin phosphatase, which regulates the extent of phosphorylation of MLC. Rho-associated kinase (Rho-kinase), which is activated by GTP. RhoA, phosphorylated MBS and consequently inactivated myosin phosphatase. Overexpression of RhoA or activated RhoA in NIH 3T3 cells increased phosphorylation of MBS and MLC. Thus, Rho appears to inhibit myosin phosphatase through the action of Rho-kinase. Phosphorylation of MYPT1 at Thr696 and Thr853 results in phosphatase inhibition and cytoskeletal reorganization.

Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

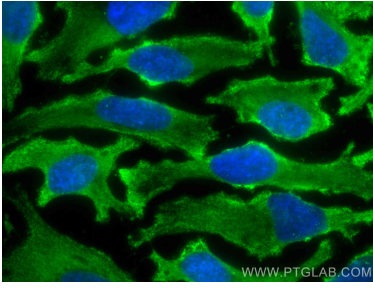
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using CoraLite® Plus 488 MYPT1 antibody (CL488-66506, Clone: 2A1A9) at dilution of 1:200.