

MYPT1 (R847) polyclonal antibody

Catalog: BS1558

Host: Rabbit

Reactivity: Human, Mouse, Rat

Background:

Myosin phosphatase target subunit 1 (MYPT1), also called Myosin-binding subunit of Myosin phosphatase, is one of the subunits and an integral component of the Myosin phosphatase. Myosin phosphatase regulates the interaction of Actin and Myosin downstream of the guanosine triphosphatase Rho, which inhibits Myosin phosphatase through the action of Rho-kinase. MYPT1 promoter contains one Sp1 transcription factor binding site, suggesting that MYPT1 is a housekeeping gene. Myotonic dystrophy protein kinase phosphorylates MYPT1 at Tyrosine 654 to regulate Myosin II phosphorylation. Inhibition of Myosin light chain phosphatase results in Ca²⁺ sensitization of smooth muscle contraction. This inhibition is modulated through phosphorylation of MYPT1 by a ZIP-like kinase, which associates with MYPT1 and phosphorylates the inhibitory site in smooth muscle. The phosphorylation of MYPT1 by protein kinase C results in altered dephosphorylation of Myosin by attenuating the binding of protein phosphatase 1 catalytic subunit (PP1c) and the phosphorylated Myosin light chain to MYPT1. PP1c interacts with at least four binding sites on the amino-terminus of MYPT1.

Product:

1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

Molecular Weight:

~ 115 kDa

Swiss-Prot:

O14974

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:1000

IHC: 1:50~1:200

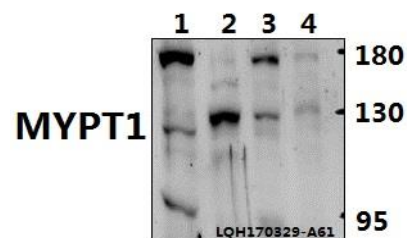
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

MYPT1 (R847) polyclonal antibody detects endogenous levels of MYPT1 protein.

DATA:



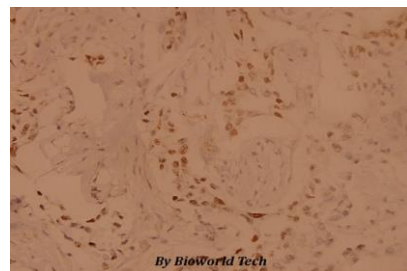
Western blot (WB) analysis of MYPT1 (R847) polyclonal antibody at 1:500 dilution

Lane1:MEF whole cell lysate(40ug)

Lane2:PC12 whole cell lysate(40ug)

Lane3:MCF-7 whole cell lysate(40ug)

Lane4:HeLa whole cell lysate(40ug)



Immunohistochemistry (IHC) analyzes of MYPT1 (R847) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.

Note:

For research use only, not for use in diagnostic procedure.

Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: info@biogot.com

Tel: 0086-025-68037686

Fax: 0086-025-68035151



PRODUCT DATA SHEET

Bioworld Technology, Inc.

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Add: 1660 South Highway 100, Suite 500 St. Louis Park,
MN 55416, USA.

Email: info@bioworld.com

Tel: 6123263284

Fax: 6122933841

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