

For Research Use Only

Phospho-MST1 (Thr183)/MST2 (Thr180) Recombinant antibody, PBS Only

Catalog Number: 80093-1-PBS



Basic Information

Catalog Number:

80093-1-PBS

Concentration:

1mg/ml

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC005231

GeneID (NCBI):

6789

UNIPROT ID:

Q13043

Full Name:

serine/threonine kinase 4

Calculated MW:

56 kDa

Observed MW:

59 kDa

Purification Method:

Protein A purification

CloneNo.:

1P6

Applications

Tested Applications:

WB, FC (Intra), Indirect ELISA

Species Specificity:

human, mouse

Background Information

Mammalian STE20-like serine-threonine kinase MST1, encoded by the STK4 gene, is a multifunctional protein. MST1 and its closest paralogs MST2 (encoded by the STK3 gene), MST3, and MST4 are members of the Class II Germinal Center Family of Protein Kinases. STK3/4 and LATS1/2 (large tumor suppressor 1 and 2) are core kinase components of the Hippo tumor suppressor pathway in mammals. In the conventional Hippo pathway, the STK3/4 and LATS1/2 signaling cascade phosphorylates and inactivates the transcriptional coactivator YAP1 (yes associated protein 1) and its close paralog WWTR1. YAP1 and WWTR1 do not have DNA binding domains and they exert their biological outputs, such as cell proliferation and survival, by interacting with the TEAD1-4 transcription factors. Lines of evidence have indicated that dysregulation or loss of STK4/Hippo signaling is linked to developmental disorders and carcinogenesis with poor prognosis. STK4 is a stress-induced kinase and it can be activated in response to cell-death inducers. Autophosphorylation of STK4 at Thr183 (Thr180 in STK3) in the activation loop is a key activation mechanism for STK4/3 because phosphorylation of Thr183/180 causes the cleavage of STK4 by caspases under apoptotic conditions. The caspase-cleavage results in a more active STK4 protein (STK4-N, an amino-terminally truncated STK4), which localizes into the nucleus and induces apoptosis through histone modifications and chromatin condensations.

Storage

Storage:

Store at -80°C.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:

PBS only

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

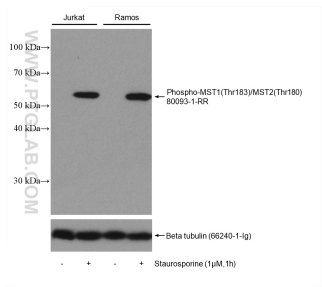
T: 4006900926

E: Proteintech-CN@ptglab.com

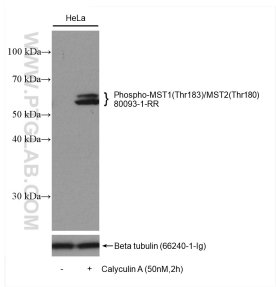
W: ptgcn.com

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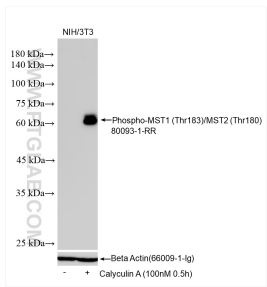
Selected Validation Data



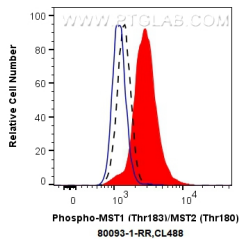
Non-treated Ramos and Jurkat and Staurosporine treated Ramos and Jurkat cells were subjected to SDS PAGE followed by western blot with 80093-1-RR (Phospho-MST1 (Thr183)/MST2 (Thr180) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin (66240-1-Ig) antibody as a loading control. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer



Non-treated HeLa cells and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 80093-1-RR (Phospho-MST1 (Thr183)/MST2 (Thr180) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin (66240-1-Ig) antibody as a loading control. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer formulation.



Non-treated NIH/3T3 cells and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 80093-1-RR (Phospho-MST1 (Thr183)/MST2 (Thr180) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Actin (66009-1-Ig) antibody as a loading control. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer formulation.



1X10⁶ Calyculin A treated HeLa cells were intracellularly stained with 0.25 ug Anti-Human Phospho-MST1 (Thr183)/MST2 (Thr180) (80093-1-RR, Clone:1P6) and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.25 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with 90% MeOH. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer formulation.