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

Size:
1 mg/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, Indirect ELISA Species Specificity: Human

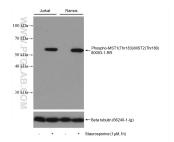
## **Background Information**

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 mammalians . 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 aminoterminally truncated STK4), which localizes into the nucleus and induces apoptosis through histone modifications and chromatin condensations

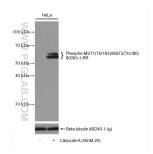
Storage

Storage: Store at -80°C. Storage Buffer: PBS Only

## **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. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer formulation.



Non-treated HeLa 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. This data was developed using the same antibody clone with 80093-1-PBS in a different storage buffer formulation.