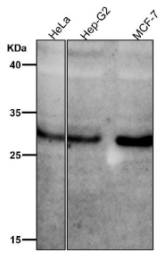
Phospho-MST1/MST2 (pThr183/pThr180) Antibody [clone 32S47] (FY12170)

Catalog No.	Formulation	Size
FY12170	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

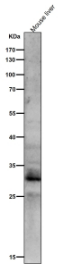
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32S47
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q13043, Q13188
Applications	Western blot: 1:500-1:2000
Limitations	This Phospho-MST1/MST2 (pThr183/pThr180) antibody is available for research use only.



All lanes use the Phospho-MST1/MST2 (pThr183/pThr180) antibody at 1:1000 dilution for 1 hour at room temperature.



All lanes use the Phospho-MST1/MST2 (pThr183/pThr180) antibody at 1:1000 dilution for 1 hour at room temperature.

Description

Phospho-MST1/MST2 (pThr183/pThr180) antibody detects the phosphorylated forms of MST1 (Thr183) and MST2 (Thr180), two core kinases in the Hippo signaling pathway. MST1 and MST2 are serine/threonine kinases belonging to the STE20 family and function as tumor suppressors by regulating cell proliferation, apoptosis, and organ size. Phosphorylation at these threonine residues is essential for their activation and downstream signaling through LATS kinases and transcriptional co-activators such as YAP and TAZ.

Research using Phospho-MST1/MST2 (pThr183/pThr180) antibody highlights their role in developmental biology and cancer. The Hippo pathway restricts cell growth, and loss of MST1/2 activity leads to YAP/TAZ hyperactivation, which promotes tumor initiation and metastasis. Conversely, phosphorylation-mediated activation of MST1/2 enhances apoptotic signaling and prevents uncontrolled proliferation. Mutations and dysregulation of this pathway have been implicated in hepatocellular carcinoma, breast cancer, colorectal cancer, and sarcomas.

Beyond oncology, MST1/2 activity influences immune system regulation and cardiovascular health. In T cells, MST1 regulates trafficking, adhesion, and immune synapse formation. Deficiency in MST1 has been linked to primary immunodeficiency disorders characterized by recurrent infections and defective lymphocyte migration. In cardiac biology, MST kinases contribute to heart development and stress responses, with phosphorylation regulating apoptosis in cardiomyocytes during ischemic injury.

Neurobiology research also benefits from Phospho-MST1/MST2 (pThr183/pThr180) antibody, as MST1 phosphorylation has been linked to neuronal apoptosis in models of stroke and neurodegenerative disease. Monitoring phosphorylation levels provides insights into mechanisms of neuronal injury and survival. In metabolic studies, Hippo pathway signaling intersects with insulin and mTOR pathways, suggesting MST1/2 phosphorylation affects energy balance and metabolism.

Antibodies specific for phospho-MST1/2 are validated for western blot, immunohistochemistry, and immunofluorescence. These reagents selectively detect the active, phosphorylated kinases, distinguishing them from total MST1/2. Clone-based antibodies provide reproducibility for tracking phosphorylation dynamics in diverse tissues and experimental systems.

NSJ Bioreagents offers this Phospho-MST1/MST2 (pThr183/pThr180) antibody to support research in Hippo signaling, cancer, immunity, and cardiovascular biology.

Application Notes

Optimal dilution of the Phospho-MST1/MST2 (pThr183/pThr180) antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Phospho-MST1/MST2 (T183 + T180) was used as the immunogen for the Phospho-MST1/MST2 (pThr183/pThr180) antibody.

Storage

Store the Phospho-MST1/MST2 (pThr183/pThr180) antibody at -20oC.

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