

MST2 Protein, Human (Sf9, GST)

Cat. No.:	HY-P701821
Synonyms:	STK3; Serine/threonine-protein kinase 3; Mammalian STE20-like protein kinase 2; MST-2; STE20-like kinase MST2; Serine/threonine-protein kinase Krs-1
Species:	Human
Source:	Sf9 insect cells
Accession:	Q13188 (M1-F491)
Gene ID:	6788
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>MST2 protein, a stress-activated, pro-apoptotic kinase, contributes to various cellular processes, serving as a key component in the Hippo signaling pathway that plays a central role in organ size control and tumor suppression. Upon caspase-cleavage, MST2 enters the nucleus, inducing chromatin condensation and internucleosomal DNA fragmentation, promoting apoptosis. In the Hippo pathway, MST2, along with its counterpart STK4/MST1 and the regulatory protein SAV1, forms a kinase cascade crucial for phosphorylating and activating LATS1/2-MOB1 complex. This cascade further phosphorylates and inactivates the YAP1 oncoprotein and WWTR1/TAZ, regulating genes essential for cell proliferation, death, and migration. MST2 and MST1 are vital for repressing hepatocyte proliferation, preventing activation of facultative adult liver stem cells, and inhibiting tumor formation. Beyond the Hippo pathway, MST2 phosphorylates NKX2-1, NEK2, CROCC, CEP250, MOBKL1A, MOBKL1B, and RASSF2, exerting influence on centrosome disjunction, RAF1 activation, ESR1 transcriptional activity, and STK38 activation. MST2, working in conjunction with SAV1, positively regulates RAF1 activation by suppressing inhibitory phosphorylation on 'Ser-259' and collaborates with MOBKL1B to activate STK38.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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