

**#3822** Store at -20°C

# MST4 Antibody


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**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk B	Endogenous	52	Rabbit	#Q9P289	51765

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	MST4 Antibody recognizes endogenous levels of total MST4 protein independent of phosphorylation. The antibody does not cross-react with MST1-3 proteins.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal residues of human MST4 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	<p>Mammalian sterile-20-like (MST) kinases are upstream regulators of mitogen-activated protein kinase (MAPK) signaling pathways that regulate multiple biological processes, including apoptosis, morphogenesis, cell migration, and cytoskeletal rearrangements (1). This group of serine/threonine kinases includes a pair of closely related proteins (MST1, MST2) that are functionally distinct from the more distantly related MST3 and MST4 kinases. All four MST kinases share a conserved amino-terminal kinase domain and carboxy-terminal regulatory and interaction domains (1-3). At least three of these kinases (MST1-3) promote apoptosis and are activated by caspase cleavage followed by nuclear translocation of the active kinase. MST1/2 kinases play a key role in the Hippo signaling pathway, an evolutionarily conserved program that controls organ size by regulating cell proliferation, apoptosis, and stem cell self renewal (4).</p> <p>Mammalian Sterile 20-like kinase 4 (MST4, STK26, MASK) is a Golgi-localized kinase that is cleaved by caspase-3 <i>in vitro</i>. While its potential role in apoptosis is unclear, research studies indicate that MST4 is involved in MAPK and EGF pathway signaling (5,6). MST4 and the serine/threonine kinase YSK1 (STK25) localize to the Golgi apparatus following association with the Golgi scaffold protein GM130. Binding to GM130 activates MST4 through autophosphorylation at Thr178 (7).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Dan, I. et al. (2001) <i>Trends Cell Biol</i> 11, 220-30.</li> <li>2. Creasy, C.L. et al. (1996) <i>J Biol Chem</i> 271, 21049-53.</li> <li>3. Lee, K.K. and Yonehara, S. (2002) <i>J Biol Chem</i> 277, 12351-8.</li> <li>4. Zhao, B. et al. (2011) <i>Nat Cell Biol</i> 13, 877-83.</li> <li>5. Dan, I. et al. (2002) <i>J Biol Chem</i> 277, 5929-39.</li> <li>6. Sung, V. et al. (2003) <i>Cancer Res</i> 63, 3356-63.</li> <li>7. Preisinger, C. et al. (2004) <i>J Cell Biol</i> 164, 1009-20.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected

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