

#3952 Store at -20°C

Mst2 Antibody



✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #6788
Swiss-Prot Acc. #Q13188

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk, B	60 kDa	Rabbit**

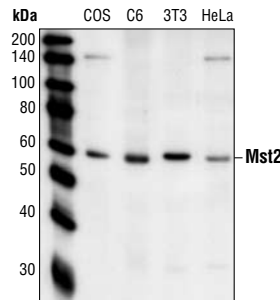
Background: Mst kinases, members of the STE20 family of kinases, are upstream activators of MAPK pathways that regulate processes such as apoptosis, morphogenesis and cytoskeletal rearrangements. The amino-terminal kinase domain of Mst is considerably homologous to the kinase domain of yeast STE20 kinase and other p21-activated kinases (1). The carboxy-terminal region of Mst1 and Mst2 contains dimerization and inhibitory domains (1-3). Dimerization and phosphorylation at the activation loop results in translocation of Mst1 from the cytosol to the nucleus (3). Growing evidence indicates that Mst1, Mst2 and Mst3 are activated by apoptotic signals as well as other stress conditions (4-6). Complete activation of Mst1 requires both phosphorylation and caspase-mediated cleavage (4). Sequence alignment of the activation loop of the GCK family indicates that Thr183 of Mst1 and Thr180 of Mst2 are the conserved residues and might be critical for the activity of the kinases. Activated Mst kinases may rely on p38 MAPK and JNK pathways to amplify apoptotic signals (5). Phosphorylation at Ser327 of Mst1, which is close to the caspase-3 recognition site, inhibits caspase-mediated cleavage (4).

Specificity/Sensitivity: Mst2 Antibody detects endogenous levels of total Mst2 protein. The antibody does not cross-react with Mst1, Mst3 or Mst4.

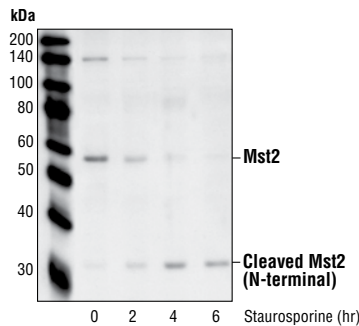
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal residues of human Mst2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Dan, I. et al. (2001) *Trends Cell Biol.* 11, 220-230.
- (2) Creasy, C.L. et al. (1996) *J. Biol. Chem.* 271, 21049-21053.
- (3) Lee, K. and Yonehara, S. (2002) *J. Biol. Chem.* 277, 12351-12358.
- (4) Graves, J.D. et al. (2001) *J. Biol. Chem.* 276, 14909-14915.
- (5) Lee, K. et al. (2001) *J. Biol. Chem.* 276, 19276-19285.
- (6) Graves, J.D. et al. (1998) *EMBO J.* 17, 2224-2234.



Western blot analysis of extracts from COS, C6, NIH/3T3 and HeLa cells, using Mst2 Antibody.



Western blot analysis of extracts from HeLa cells treated with staurosporine for the indicated times, using Mst2 Antibody.

Storage: 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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunoprecipitation 1:25

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.