

SAPK/JNK Antibody

- Small 200 μ l
(20 western blots)
- Large 600 μ l
(60 western blots)

rev. 02/09/12

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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.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Hm, B, Z, Sc	46 kDa, 54 kDa	Rabbit**

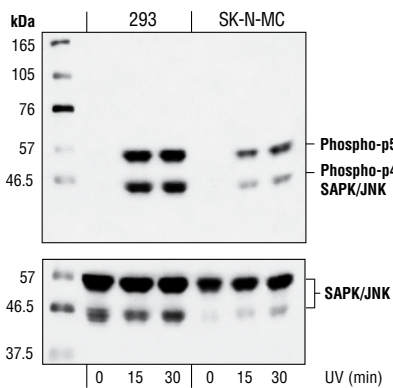
Background: The stress-activated protein kinase/Jun-amino-terminal kinase SAPK/JNK is potently and preferentially activated by a variety of environmental stresses including UV and gamma radiation, ceramides, inflammatory cytokines and in some instances, by growth factors and GPCR agonists (1-6). As with the other MAPKs, the core signaling unit is composed of a MAPKKK, typically MEKK1-MEKK4, or by one of the mixed lineage kinases (MLKs), which phosphorylate and activate MKK4/7. Upon activation, MKKs phosphorylate and activate the SAPK/JNK kinase (2). Stress signals are delivered to this cascade by small GTPases of the Rho family (Rac, Rho, cdc42) (3). Both Rac1 and cdc42 mediate the stimulation of MEKKs and MLKs (3). Alternatively, MKK4/7 can be activated in a GTPase independent mechanism via stimulation of a germinal center kinase (GCK) family member (4). There are three SAPK/JNK genes each of which undergoes alternative splicing resulting in numerous isoforms (3). SAPK/JNK, when active as a dimer, can translocate to the nucleus and regulate transcription through its effects on c-Jun, ATF-2 and other transcription factors (3,5).

Specificity/Sensitivity: SAPK/JNK Antibody detects endogenous levels of total SAPK/JNK protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a recombinant human JNK2 fusion protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Davis, R.J. (1999) *Biochem Soc Symp* 64, 1-12.
- (2) Ichijo, H. (1999) *Oncogene* 18, 6087-93.
- (3) Kyriakis, J.M. and Avruch, J. (2001) *Physiol Rev* 81, 807-69.
- (4) Kyriakis, J.M. (1999) *J Biol Chem* 274, 5259-62.
- (5) Leppä, S. and Bohmann, D. (1999) *Oncogene* 18, 6158-62.
- (6) Whitmarsh, A.J. and Davis, R.J. (1998) *Trends Biochem Sci* 23, 481-5.



Western blot analysis of extracts from 293 and SK-N-MC cells, untreated or UV-treated (40 J/m²), using Phospho-SAPK/JNK Antibody #9251 (upper) or SAPK/JNK Antibody (lower).

Entrez-Gene ID #5599
Swiss-Prot Acc. #P45983

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

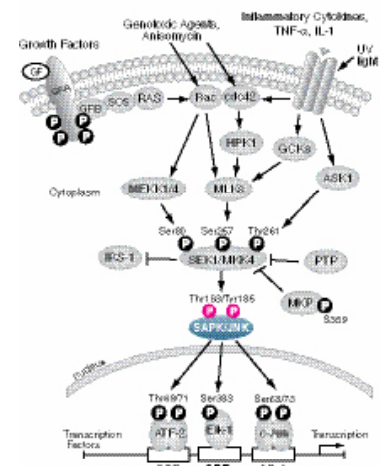
*Species cross-reactivity is determined by western blot.

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

Recommended Antibody Dilutions:
Western Blotting 1:1000

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—zebra fish B—bovine

Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.