**SAPK/JNK Antibody**

Store at -20°C

#9252

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications: W—Western  IP—Immunoprecipitation  IHC—Immunohistochemistry  ChIP—Chromatin Immunoprecipitation  IF—Immunofluorescence  F—Flow cytometry  E-P—ELISA-Peptide

Species Cross-Reactivity: 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  Se—S. cerevisiae  Ce—C. elegans  Hr—Horse  All—all species expected  Species enclosed in parentheses are predicted to react based on 100% homology.

### Molecular Wt.

<table>
<thead>
<tr>
<th>Source</th>
<th>Molecular Wt.</th>
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<tbody>
<tr>
<td>Rabbit*</td>
<td>46 kDa, 54 kDa</td>
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</table>

### Applications

<table>
<thead>
<tr>
<th>Applications</th>
<th>Species Cross-Reactivity*</th>
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<tbody>
<tr>
<td>W Endogenous</td>
<td>H, M, R, Hm, Mk, B, Z, Sc</td>
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</tbody>
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### Background:

The stress-activated protein kinase/Jun-aminoterminal 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, 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 MEKs 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 JNK1, JNK2 or JNK3 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:


### 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

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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

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