**Phospho-SAPK/JNK(Thr183/Tyr185) (98F2) Rabbit mAb**

**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:** Phospho-SAPK/JNK (Thr183/Tyr185) (98F2) Rabbit mAb detects endogenous levels of p46 and p54 SAPK/JNK only when phosphorylated at Thr183 and Tyr185. This antibody does not recognize phosphorylated p44/42 MAPK or p38 MAP kinase.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide (KLH-coupled) corresponding to residues surrounding Thr183/Tyr185 of human SAPK/JNK.

**Recommended Antibody Dilutions:** Western Blotting 1:1000

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

**Species Cross-Reactivity:**

<table>
<thead>
<tr>
<th>Applications</th>
<th>W</th>
<th>Endogenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>H, M, R, Hm</td>
<td></td>
</tr>
</tbody>
</table>

**Recommended Companion Products:** Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Western blot analysis of purified MAPK phospho-proteins or extracts from NIH/3T3 cells treated with UV light and PDGF, using Phospho-p44 MAPK (Thr202/Tyr204) (197G2) Rabbit mAb (upper), Phospho-p38 MAPK (Thr180/Tyr182) (3D7) Rabbit mAb #9215 (middle), and Phospho-SAPK/JNK (Thr183/Tyr185) (98F2) Rabbit mAb #4671 (lower).**

**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.
Western blot analysis of extracts from 293 cells and NIH/3T3 cells, untreated or UV-treated, using Phospho-SAPK/JNK (Thr183/Tyr185) (98F2) Rabbit mAb (upper) or SAPK/JNK (56G8) Rabbit mAb (lower).