Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb

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

Applications | Species Cross-Reactivity* | Molecular Wt. | Isotype | Rabbit IgG**
--- | --- | --- | --- | ---
W, IP, IHC-P Endogenous | H, M, R, Dm, Sc | 46, 54 kDa | |

Molecular Weight: 46, 54 kDa

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) (81E11) Rabbit mAb detects endogenous levels of p46 and p54 SAPK/JNK when phosphorylated at Thr183 and Tyr185. It will also react with SAPK/JNK singly phosphorylated at Thr183 (Thr183) (81E11) Rabbit mAb.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr183/Tyr185 of SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb. It will also react with SAPK/JNK singly phosphorylated at Thr183. This antibody may cross-react with phosphorylated p44/42 or p38 MAP kinases.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:200
For application specific protocols please see the web page for this product at www.cellsignal.com.

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

Species Cross-Reactivity Key:
<table>
<thead>
<tr>
<th>Species</th>
<th>Cross-Reactivity</th>
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<tbody>
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<td>Dm</td>
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**Species cross-reactivity is determined by western blot.

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

Recommended Companion Products:
- Boost IHC Detection Reagent.
- Citrate Unmasking buffer.
- Anti-rabbit secondary antibodies must be used to detect this antibody.

Western blot analysis of extracts from 293 cells, untreated or UV-treated, NIH/3T3 cells, untreated or UV-treated and C6 cells, untreated or anisomycin-treated, using Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded 293T cells untreated (left) or UV-treated (right), using Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb.

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.
Immunohistochemical analysis of paraffin-embedded human lung carcinoma using Phospho-SAPK/JNK (Thr183/Tyr185) (81E11) Rabbit mAb in the presence of control peptide (left) or Phospho-SAPK/JNK (Thr183/Tyr185) Blocking Peptide #1215 (right).