Anti-phospho-JNK 1/2 (SAPK) (pThr\textsuperscript{183}/pTyr\textsuperscript{185})
Developed in Rabbit, Affinity Isolated Antibody

Product Number J 4644

Product Description
Anti-phospho-JNK1/2 (SAPK) (pThr\textsuperscript{183}/pTyr\textsuperscript{185}) was 
developed in rabbit using a synthetic phosphopeptide 
derived from a region of human JNK1&2 that contains 
thyreonine 183 and tyrosine 185 as immunogen. The 
serum is affinity purified using epitope-specific affinity 
chromatography. The antibody is preadsorbed to 
remove any reactivity towards non-phosphorylated JNK 
enzymes.

Anti-phospho-JNK1/2 (SAPK) (pThr\textsuperscript{183}/pTyr\textsuperscript{185}) 
specifically recognizes the endogenous, active forms of 
JNK1&2 phosphorylated at threonine 183 and tyrosine 
185. It detects human, rat, mouse and chick JNK1&2. It 
has been used in immunoblotting and immunostaining 
applications.

The stress-activated protein kinase (SAPK) and 
mitogen-activated protein kinase (MAPK) pathways are 
signal transduction cascades with distinct functions in 
mammals. Both are structurally related in their 
phosphorylation activity but differ in the events leading 
to phosphorylation. MAPKs are rapidly phosphorylated 
and activated in response to various extracellular 
stimuli.\textsuperscript{1}

In the SAPK pathway, SAPKs are the dominant c-jun 
amino-terminal protein kinases (e.g. JNK1) activated by 
dual specificity kinase JNKK in response to a variety of 
cellular stresses, including malfolded proteins in the 
endoplasmic reticulum, treatment with interleukin-beta 
and tumor necrosis factor-alpha. (The name JUN 
comes from the Japanese 'ju-nana,' meaning the 
number 17.). JNKK1 is a specific activator of JNK1, 
JNK2, and p38, but not of ERK2.\textsuperscript{2,3,4} For full enzymatic 
activity, JNK1 & 2 require dual phosphorylation at 
threonine 183 and tyrosine 185.

The JNK1 signaling pathway plays a key role in T cell 
receptor-initiated helper T-cell proliferation, apoptosis, 
and differentiation.

Reagents
Anti-phospho-JNK1/2 (SAPK) (pThr\textsuperscript{183}/pTyr\textsuperscript{185}) is 
supplied in 100 µl Dulbecco’s phosphate buffered 
saline (without Mg\textsuperscript{2+} and Ca\textsuperscript{2+}), pH 7.3, with 50% 
glycerol, 1% bovine serum albumin (BSA) and 0.05% 
sodium azide as a preservative.

The amount of antibody provided is sufficient for 10 
immunoblots.

Precautions and Disclaimer
Due to the sodium azide content, a material safety data 
sheet (MSDS) for this product has been sent to the 
attention of the safety officer of your institution. Consult 
the MSDS for information regarding hazards and safe 
handling practices.

Storage/Stability
Store at \(-20^\circ C\). Due to the presence of 50% glycerol 
the antibody will remain in solution. For extended 
storage, centrifuge the vial briefly before opening and 
prepare working aliquots. The antibody is stable for at 
least six months when stored appropriately. Working 
dilutions should be discarded if not used within 12 
hours.

Product Profile
The recommended working concentration of 
0.2 to 1.0 µg/ml is determined by immunoblotting using 
human 293 cells treated with UV irradiation. Data 
demonstrates that only phosphopeptide corresponding 
to the region containing threonine 183 and tyrosine 185 
blocks the antibody signal, which confirms the 
specificity of Anti-phospho-JNK1/2 (SAPK) 
(pThr\textsuperscript{183}/pTyr\textsuperscript{185}) for these phosphophorylated residues.
Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

AH/JK 7/2004