#9164 Store at -20°C

Phospho-c-Jun (Ser73) Antibody

☐ Small 100 µl (10 western blots)

☐ Large 300 µl (30 western blots)

Cell Signaling TECHNOLOGY®

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rev. 04/08/10

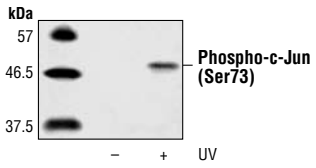
Entrez-Gene ID #3725
Swiss-Prot Acc. #P05412

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC Endogenous	H, M, R, Mk	48 kDa	Rabbit**

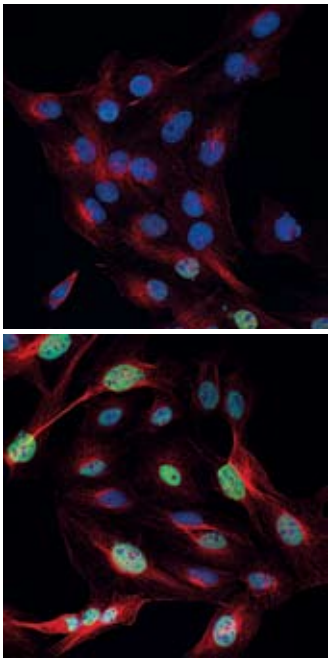
Background: c-Jun is a member of the Jun Family containing c-Jun, JunB and JunD, and is a component of the transcription factor AP-1 (activator protein-1). AP-1 is composed of dimers of Fos, Jun and ATF family members and binds to and activates transcription at TRE/AP-1 elements (reviewed in 1). Extracellular signals including growth factors, chemokines and stress activate AP-1-dependent transcription. The transcriptional activity of c-Jun is regulated by phosphorylation at Ser63 and Ser73 through SAPK/JNK (reviewed in 2). Knock-out studies in mice have shown that c-Jun is essential for embryogenesis (3), and subsequent studies have demonstrated roles for c-Jun in various tissues and developmental processes including axon regeneration (4), liver regeneration (5) and T cell development (6). AP-1 regulated genes exert diverse biological functions including cell proliferation, differentiation, and apoptosis, as well as transformation, invasion and metastasis, depending on cell type and context (7-9). Other target genes regulate survival as well as hypoxia and angiogenesis (8,10). c-Jun has emerged as a promising therapeutic target for cancer, vascular remodeling, acute inflammation, as well as rheumatoid arthritis (11,12).

Specificity/Sensitivity: Phospho-c-Jun (Ser73) Antibody detects endogenous levels of c-Jun only when activated by phosphorylation at Ser73. This antibody also recognizes JunD phosphorylated at Ser100.

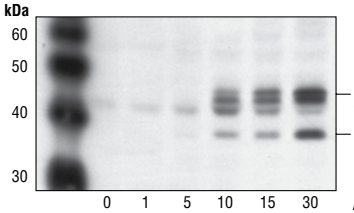
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser73 of human c-Jun. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from UV-treated NIH/3T3 cells using Phospho-c-Jun (Ser73) Antibody.



Confocal immunofluorescent images of C6 cells, untreated (upper) or anisomycin treated (lower), labeled with Phospho-c-Jun (Ser73) Antibody (green) and β-Tubulin Antibody #2146 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



◀ *Western blot analysis of extracts from NIH/3T3 cells treated with anisomycin (25 ug/ml) for the indicated times, using Phospho-c-Jun (Ser73) Antibody #9164. The lower molecular weight band is phospho-JunD (Ser100).*

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
Immunofluorescence (IF-IC)	1:100

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.

Background References:

(1) Jochum, W. et al. (2001) *Oncogene* 20, 2401–12.

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(3) Hilberg, F. et al. (1993) *Nature* 365, 179–81.

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(11) Kim, S. and Iwao, H. (2003) *J Pharmacol Sci* 91, 177–81.

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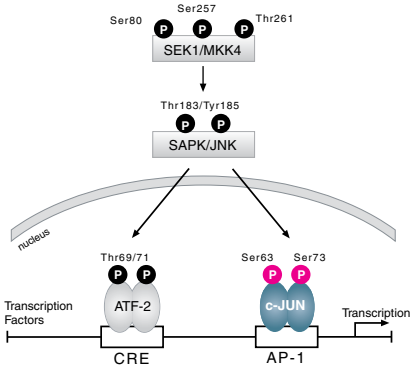

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.