

**Phospho-c-Jun (Ser73) Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IF-IC	H M R Mk	Endogenous	48	Rabbit	#P05412	3725

**Product Usage Information****Application**

Western Blotting  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:100

**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.

**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.

**Background**

c-Jun is a member of the Jun family containing c-Jun, JunB, and JunD, and is a component of the transcription factor activator protein-1 (AP-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). Knockout 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). Research studies have implicated c-Jun as a promising therapeutic target for cancer, vascular remodeling, acute inflammation, and rheumatoid arthritis (11,12).

**Background References**

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3. Hilberg, F. et al. (1993) *Nature* 365, 179-81.
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5. Behrens, A. et al. (2002) *EMBO J* 21, 1782-90.
6. Riera-Sans, L. and Behrens, A. (2007) *J Immunol* 178, 5690-700.
7. Leppä, S. and Bohmann, D. (1999) *Oncogene* 18, 6158-62.
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9. Weiss, C. and Bohmann, D. (2004) *Cell Cycle* 3, 111-3.
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11. Kim, S. and Iwao, H. (2003) *J Pharmacol Sci* 91, 177-81.
12. Dass, C.R. and Choong, P.F. (2008) *Pharmazie* 63, 411-4.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

**W:** Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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