

#2303 Store at -20°C

Phospho-c-Jun (Thr91) Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Endogenous	48	Rabbit	#P05412	3725

Product Usage Information	Application Western Blotting	Dilution 1:1000
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 (Thr91) Antibody detects endogenous levels of total c-Jun protein only when phosphorylated at threonine 91. This antibody may also recognize JunB phosphorylated at Thr102.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Thr91 of human c-Jun. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>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).</p> <p>The multisite phosphorylation of the transcription factor c-Jun has been reinvestigated recently (13). The phosphorylation of Thr91 and Thr93 induces a change in the conformation of c-Jun that enhances accessibility of the carboxy-terminal sites to a protein phosphatase(s) (14). The identity of the protein kinase that phosphorylates Thr91 and Thr93 <i>in vivo</i> is unknown.</p>	
Background References	<ol style="list-style-type: none"> Jochum, W. et al. (2001) <i>Oncogene</i> 20, 2401-12. Davis, R.J. (2000) <i>Cell</i> 103, 239-52. Hilberg, F. et al. (1993) <i>Nature</i> 365, 179-81. Raivich, G. et al. (2004) <i>Neuron</i> 43, 57-67. Behrens, A. et al. (2002) <i>EMBO J</i> 21, 1782-90. Riera-Sans, L. and Behrens, A. (2007) <i>J Immunol</i> 178, 5690-700. Leppä, S. and Bohmann, D. (1999) <i>Oncogene</i> 18, 6158-62. Shaulian, E. and Karin, M. (2002) <i>Nat Cell Biol</i> 4, E131-6. Weiss, C. and Bohmann, D. (2004) <i>Cell Cycle</i> 3, 111-3. Karamouzis, M.V. et al. (2007) <i>Mol Cancer Res</i> 5, 109-20. Kim, S. and Iwao, H. (2003) <i>J Pharmacol Sci</i> 91, 177-81. Dass, C.R. and Choong, P.F. (2008) <i>Pharmazie</i> 63, 411-4. Morton, S. et al. (2003) <i>EMBO J</i> 22, 3876-86. Papavassiliou, A.G. et al. (1995) <i>EMBO J</i> 14, 2014-9. 	

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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