

Store at -20C  
#2993

## Phospho-c-Jun (Thr93) Antibody



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

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

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Phospho-c-Jun (Thr93) Antibody detects endogenous levels of c-Jun only when phosphorylated at threonine 93.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Thr93 of human c-Jun. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	<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 (14). 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) (15). The identity of the protein kinase that phosphorylates Thr91 and Thr93 <i>in vivo</i> is unknown.</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Jochum, W. et al. (2001) <i>Oncogene</i> 20, 2401-12.</li> <li>2. Davis, R.J. (2000) <i>Cell</i> 103, 239-52.</li> <li>3. Hilberg, F. et al. (1993) <i>Nature</i> 365, 179-81.</li> <li>4. Raivich, G. et al. (2004) <i>Neuron</i> 43, 57-67.</li> <li>5. Behrens, A. et al. (2002) <i>EMBO J</i> 21, 1782-90.</li> <li>6. Riera-Sans, L. and Behrens, A. (2007) <i>J Immunol</i> 178, 5690-700.</li> <li>7. Leppä, S. and Bohmann, D. (1999) <i>Oncogene</i> 18, 6158-62.</li> <li>8. Shaulian, E. and Karin, M. (2002) <i>Nat Cell Biol</i> 4, E131-6.</li> <li>9. Weiss, C. and Bohmann, D. (2004) <i>Cell Cycle</i> 3, 111-3.</li> <li>10. Karamouzis, M.V. et al. (2007) <i>Mol Cancer Res</i> 5, 109-20.</li> <li>11. Kim, S. and Iwao, H. (2003) <i>J Pharmacol Sci</i> 91, 177-81.</li> <li>12. Dass, C.R. and Choong, P.F. (2008) <i>Pharmazie</i> 63, 411-4.</li> <li>13. Morton, S. et al. (2003) <i>EMBO J</i> 22, 3876-86.</li> <li>14. Papavassiliou, A.G. et al. (1995) <i>EMBO J</i> 14, 2014-9.</li> </ol>	

### 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

**Trademarks and Patents**

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.  
All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](https://cellsignal.com/trademarks) for more information.

**Limited Uses**

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.