

**#2844** Store at -20°C

## Phospho-C/EBP $\alpha$ (Thr222/226) Antibody


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TECHNOLOGY®

**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.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M	Endogenous	30, 42, 45	Rabbit	#P49715	1050

<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/EBP $\alpha$ (Thr222/226) Antibody detects endogenous levels of C/EBP $\alpha$ only when phosphorylated at threonine 222 and 226. This antibody does not cross-react with other phosphorylated C/EBP isoforms.	
<b>Species predicted to react based on 100% sequence homology:</b>	Rat	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr222/226 of mouse C/EBP $\alpha$ . Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	CCAAT/enhancer-binding proteins (C/EBPs) are a family of transcription factors that are critical for cellular differentiation, terminal function, and inflammatory response (1). Six members of the family have been characterized (C/EBP $\alpha$ , $\beta$ , $\delta$ , $\gamma$ , $\epsilon$ , and $\zeta$ ) and are distributed in a variety of tissues (1). Translation from alternative start codons results in two isoforms of C/EBP $\alpha$ (p42 and p30), which are both strong transcriptional activators (2). It has been reported that insulin and insulin-like growth factor-I stimulate the dephosphorylation of C/EBP $\alpha$ , which may play a key role in insulin-induced repression of GLUT4 transcription (3). Phosphorylation of C/EBP $\alpha$ at Thr222, Thr226, and Ser230 by GSK-3 seems to be required for adipogenesis (4).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Lekstrom-Hims, J. and Xanthopoulos, K.G. (1998) <i>J. Biol. Chem.</i> 273, 28545-28548.</li> <li>2. Lin, F. et al. (1993) <i>Proc. Natl. Acad. Sci. USA</i> 90, 9606-9610.</li> <li>3. Hemati, N. et al. (1997) <i>J. Biol. Chem.</i> 272, 25913-25919.</li> <li>4. Ross, S.E. et al. (1999) <i>Mol. Cell. Biol.</i> 19, 8433-8441.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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