



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

Store at -20C
#3081

Phospho-C/EBPbeta (Ser105) Antibody (Rat Specific)

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

Applications: W	Reactivity: R	Sensitivity: Endogenous	MW (kDa): 41	Source/Isotype: Rabbit	UniProt ID: #P21272	Entrez-Gene Id: 24253
---------------------------	-------------------------	-----------------------------------	------------------------	----------------------------------	-------------------------------	---------------------------------

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/EBPbeta (Ser105) Antibody (Rat Specific) detects endogenous levels of rat C/EBPbeta only when phosphorylated at serine 105. It does not cross-react with phosphorylated rat C/EBP family members alpha, delta, gamma, epsilon or zeta. It also does not recognize the p20 LIP rat C/EBPbeta isoform.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser105 of rat C/EBPbeta. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	CCAAT/enhancer-binding proteins (C/EBPs) are a family of transcription factors critical for cellular differentiation, terminal functions, and inflammatory response (1). Six members of the family have been characterized (C/EBPα, -β, -γ, -δ, -ε, and -ζ) and are distributed in a variety of tissues (1). There are two forms of C/EBPβ, the 38 kDa liver activating protein (LAP) and the 20 kDa liver inhibitory protein (LIP) which may be products of alternative translation. The 38 kDa LAP protein is a transcriptional activator while LIP may act as an inhibitor of C/EBPβ transcriptional activity (2). Phosphorylation of C/EBPβ at distinct sites stimulates its transcriptional activity (3-5). Phosphorylation at serine 105 of rat C/EBPβ, a unique site only present in the rat sequence, seems essential for rat C/EBPβ activation (6).	
Background References	<ol style="list-style-type: none"> 1. Lekstrom-Himes, J. and Xanthopoulos, K.G. (1998) <i>J. Biol. Chem.</i> 273, 28545-28548. 2. Calkhoven, C.F. et al. (2000) <i>Genes Dev.</i> 14, 1920-1932. 3. Wegner, M. et al. (1992) <i>Science</i> 256, 370-373. 4. Trautwein, C. et al. (1993) <i>Nature</i> 364, 544-547. 5. Nakajima, T. et al. (1993) <i>Proc. Natl. Acad. Sci. USA</i> 90, 2207-2211. 6. Buck, M. et al. (1999) <i>Mol. Cell</i> 4, 1087-1092. 	

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
Cross-Reactivity Key	R: Rat
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 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.