

#3081 Store at -20C

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


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

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