

#3082 Store at -20C

**C/EBP $\beta$  Antibody**

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<b>Applications:</b> W	<b>Reactivity:</b> R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 38, 41	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P21272	<b>Entrez-Gene Id:</b> 24253
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**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

C/EBPbeta Antibody detects endogenous levels of rat C/EBPbeta protein. It does not cross-react with other C/EBP family members such as C/EBPalpha, -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 peptide 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/EBP $\alpha$ , - $\beta$ , - $\gamma$ , - $\delta$ , - $\epsilon$ , and - $\zeta$ ) and are distributed in a variety of tissues (1). There are two forms of C/EBP $\beta$ , 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/EBP $\beta$  transcriptional activity (2). Phosphorylation of C/EBP $\beta$  at distinct sites stimulates its transcriptional activity (3-5). Phosphorylation at serine 105 of rat C/EBP $\beta$ , a unique site only present in the rat sequence, seems essential for rat C/EBP $\beta$  activation (6).

**Background References**

1. Lekstrom-Himes, J. and Xanthopoulos, K.G. (1998) *J. Biol. Chem.* 273, 28545-28548.
2. Calkhoven, C.F. et al. (2000) *Genes Dev.* 14, 1920-1932.
3. Wegner, M. et al. (1992) *Science* 256, 370-373.
4. Trautwein, C. et al. (1993) *Nature* 364, 544-547.
5. Nakajima, T. et al. (1993) *Proc. Natl. Acad. Sci. USA* 90, 2207-2211.
6. Buck, M. et al. (1999) *Mol. Cell* 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

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