Revision 3

Store at -20C

#2844

Phospho-C/EBPα (Thr222/226) Antibody

Cell Signaling TECHNOLOGY®

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

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

Product Usage Information

Application	Dilution
Western Blotting	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/EBPα (Thr222/226) Antibody detects endogenous levels of C/EBPα only when phosphorylated at threonine 222 and 226. This antibody does not cross-react with other phosphorylated C/EBP isoforms.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr222/226 of mouse C/EBPα. Antibodies are purified by protein A and peptide affinity chromatography.

Background

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/EBPα, β, δ, γ, ε, and ζ) and are distributed in a variety of tissues (1). Translation from alternative start codons results in two isoforms of C/EBPα (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/EBPα, which may play a key role in insulin-induced repression of GLUT4 transcription (3). Phosphorylation of C/EBPα at Thr222, Thr226, and Ser230 by GSK-3 seems to be required for adipogenesis (4).

Background References

1. Lekstrom-Hims, J. and Xanthopoulos, K.G. (1998) *J. Biol. Chem.* 273, 28545-28548.
2. Lin, F. et al. (1993) *Proc. Natl. Acad. Sci. USA* 90, 9606-9610.
3. Hemati, N. et al. (1997) *J. Biol. Chem.* 272, 25913-25919.
4. Ross, S.E. et al. (1999) *Mol. Cell. Biol.* 19, 8433-8441.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

Trademarks and Patents

Limited Uses

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