

C/EBP Antibody Sampler Kit

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1 Kit (7 x 20 microliters)

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-C/EBP α (Ser21) Antibody	2841	20 μ l	45 kDa	Rabbit
Phospho-C/EBP α (Thr222/226) Antibody	2844	20 μ l	30, 42, 45 kDa	Rabbit
C/EBP α (D56F10) XP [®] Rabbit mAb	8178	20 μ l	42, 28 kDa	Rabbit IgG
Phospho-C/EBP β (Thr235) Antibody	3084	20 μ l	19 LIP. 36 LAP. 38 LAP. kDa	Rabbit
C/EBP β (LAP) Antibody	3087	20 μ l	35 to 38 mouse LAP. 45 to 49 human LAP. kDa	Rabbit
C/EBP δ Antibody	2318	20 μ l	29 kDa	Rabbit
CHOP (D46F1) Rabbit mAb	5554	20 μ l	27 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 μ l		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The C/EBP Antibody Sampler Kit provides an economical means of evaluating the C/EBP family of transcription factors and several phosphorylation sites that are involved in its activation. The kit includes enough antibody to perform two western blot experiments with each primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

Background

CCAAT/enhancer-binding proteins (C/EBPs) are transcription factors critical for cellular differentiation, terminal function, and inflammatory response. Six characterized family members (C/EBP α , β , δ , γ , ϵ , and ζ) are distributed in a variety of tissues (1). Translation from alternative start codons results in two C/EBP α isoforms (p42 and p30) that are strong transcriptional activators (2). Research studies indicate that insulin and insulin-like growth factor-I stimulate C/EBP α dephosphorylation, which may play a key role in insulin-induced repression of *GLUT4* transcription (3). Phosphorylation of C/EBP α at Thr222, Thr226, and Ser230 by GSK-3 may be required for adipogenesis (4). The two forms of C/EBP β , 38 kDa liver activating protein (LAP) and the 20 kDa liver inhibitory protein (LIP), may result from alternative translation. The 38 kDa LAP protein is a transcriptional activator while LIP may inhibit C/EBP β transcriptional activity (5). Phosphorylation of C/EBP β at distinct sites stimulates its transcriptional activity (6-8). Phosphorylation at the rat-specific site Ser105 in C/EBP β appears essential for C/EBP β activation in rat (9). C/EBP δ protein is highly expressed in adipose tissue, lung, and intestine (10). Increased expression of C/EBP δ mRNA levels during adipogenesis suggests that C/EBP δ plays an important role in positively regulating adipogenesis (10,11). C/EBP δ is expressed in the mammalian nervous system and plays an important role in long-term memory (10,12). CHOP is a C/EBP-homologous protein that inhibits C/EBP and LAP in a dominant-negative manner (13). CHOP expression is induced by cellular stresses, including starvation; induced CHOP suppresses cell cycle progression from G1 to S phase (14). During ER stress, the level of CHOP expression is elevated and CHOP functions to mediate programmed cell death (15).

Background References

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