

## C/EBP Antibody Sampler Kit

<b>Catalog No.</b>	E-AB-K1456	<b>Reactivity</b>	Human
<b>Storage</b>	Store at -20°C, Avoid freeze / thaw cycles	<b>Applications</b>	WB
<b>Buffer</b>	PBS with sodium azide and glycerol.	<b>Dilution</b>	1:500-1:2000

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

Included	Product	Isotype	Mol. Wt.	Size
E-AB-30685	CEBP alpha Polyclonal Antibody	Rabbit IgG	42+30kDa	20μL
E-AB-21077		IgG	42kDa	20μL
E-AB-21140		IgG	45kDa	20μL
E-AB-30687		IgG	36kDa	20μL
E-AB-20824		IgG	36kDa	20μL
E-AB-12318	CEBPD Polyclonal Antibody	Rabbit IgG	28kDa	20μL
E-AB-30923		IgG	19kDa	20μL
E-AB-1003	Goat Anti-Rabbit IgG(H+L)(peroxidase/HRP conjugated)	Goat		120μL

### Product 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.

Please visit [www.elabscience.com](http://www.elabscience.com) for validation data and a complete listing of recommended companion products.

### 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 $\alpha$ ,  $\beta$ ,  $\delta$ ,  $\gamma$ ,  $\epsilon$ , and  $\zeta$ ) are distributed in a variety of tissues. Translation from alternative start codons results in two C/EBP $\alpha$  isoforms (p42 and p30) that are strong transcriptional activators. Research studies indicate that insulin and insulin-like growth factor-I stimulate C/EBP $\alpha$  dephosphorylation, which may play a key role in insulin-induced repression of GLUT4 transcription. Phosphorylation of C/EBP $\alpha$  at Thr222, Thr226, and Ser230 by GSK-3 may be required for adipogenesis. The two forms of C/EBP $\beta$ , 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 $\beta$  transcriptional activity. Phosphorylation of C/EBP $\beta$  at distinct sites stimulates its transcriptional activity. Phosphorylation at the rat-specific site Ser105 in C/EBP $\beta$  appears essential for C/EBP $\beta$  activation in rat. C/EBP $\delta$  protein is highly expressed in adipose tissue, lung, and intestine. Increased expression of C/EBP $\delta$  mRNA levels during adipogenesis suggests that C/EBP $\delta$  plays an important role in positively regulating adipogenesis. C/EBP $\delta$  is expressed in the mammalian nervous system and plays an important role in long-term memory. CHOP is a C/EBP-homologous protein that inhibits C/EBP and LAP in a dominant-negative manner. CHOP expression is induced by cellular stresses, including starvation; induced CHOP suppresses cell cycle progression from G1 to S phase. During ER stress, the level of CHOP expression is elevated and CHOP functions to mediate programmed cell death.

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