

CCT α Antibody

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rev. 01/22/16

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H	42 kDa	Rabbit**

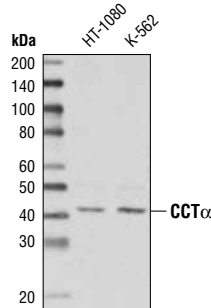
Background: CTP:phosphocholine cytidyltransferase (CCT) is a critical enzyme that regulates the CDP-choline pathway for the biosynthesis of phosphatidylcholine. Three distinct CCT isoforms are found in mammals, including CCT α , CCT β 2, and CCT β 3 (1,2). CCT α is the major isoform that is expressed in most tissues (3). CCT α is essential in the synthesis and secretion of surfactant by alveolar epithelial cells and is important in maintaining the phosphatidylcholine level that regulates lipoprotein assembly and secretion in hepatocytes (4,5). CCT α is a major component in membrane biogenesis during cytokine secretion by stimulated macrophages (6). Monoubiquitination of CCT α prevents it from entering the nucleus and leads to its degradation by lysosome (7).

Specificity/Sensitivity: CCT α Antibody detects endogenous levels of total CCT α protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human CCT α protein. Antibodies were purified by protein A and peptide affinity chromatography.

Background References:

- (1) Jackowski, S. and Fagone, P. (2005) *J Biol Chem* 280, 853-6.
- (2) Clement, J.M. and Kent, C. (1999) *Biochem Biophys Res Commun* 257, 643-50.
- (3) Karim, M. et al. (2003) *Biochim Biophys Acta* 1633, 1-12.
- (4) Tian, Y. et al. (2007) *Mol Cell Biol* 27, 975-82.
- (5) Jacobs, R.L. et al. (2004) *J Biol Chem* 279, 47402-10.
- (6) Tian, Y. et al. (2008) *J Cell Biol* 181, 945-57.
- (7) Chen, B.B. and Mallampalli, R.K. (2009) *Mol Cell Biol* 29, 3062-75.



Western blot analysis of extracts from HT-1080 and K-562 cells using CCT α Antibody.

Entrez-Gene ID #5130
Swiss-Prot Acc. #P49585

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

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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

All—all species expected

Species enclosed in parentheses are predicted to react based on 100% homology.