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CCT α Antibody

Store at -20C
#4454

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

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 42	Source/Isotype: Rabbit	UniProt ID: #P49585	Entrez-Gene Id: 5130
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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.

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

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).

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.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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