#3561 Store at -20°C

CCT2 Antibody

Cell Signaling TECHNOLOGY®

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

Entrez-Gene ID #10576
Swiss-Prot Acc. #P80314

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	54 kDa	Rabbit**

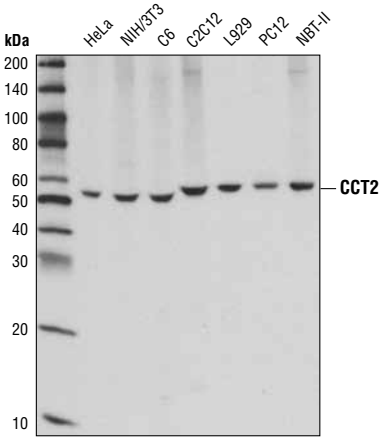
Background: CCT2 is one of eight largely unrelated subunit proteins found in a protein chaperone complex known as the chaperonin-containing TCP-1 (CCT) or TRiC complex. The CCT complex is an abundanct cytoslic component that is credited with helping newly synthesized polypeptides adopt the correct conformation (1). Proteins that fold and assemble with the help of CCT include the cytoskeletal proteins actin and tubulin as well as up to 15% of newly synthesized eukaryotic proteins (2). CCT2 is the β-subunit of the chaperone complex and is one of several CCT proteins that exhibit increased expression in response to stress. This implies that the CCT complex helps cells recover from protein damage by assisting in protein folding and assembly (3). CCT subunit levels also change throughout the cell cycle, with lower proteins levels (and reduced chaperone activity) found during induced cell cycle arrest during at M phase (4). Each CCT subunit is thought to perform a specific function during protein folding and assembly (5); CCT2 exhibits both actin and tubulin binding activities (6,3) but the exact molecular function on this subunit remains uncertain.

Specificity/Sensitivity: CCT2 Antibody detects endogenous levels of total CCT2 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to human CCT2. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

(1) Kubota, H. et al. (1995) *Eur J Biochem* 230, 3–16.
(2) Valpuesta, J.M. et al. (2002) *FEBS Lett* 529, 11–6.
(3) Yokota, S.I. et al. (2000) *Eur J Biochem* 267, 1658–64.
(4) Yokota, S. et al. (2001) *Eur J Biochem* 268, 4664–73.
(5) Kubota, H. et al. (1994) *Curr Biol* 4, 89–99.
(6) McCormack, E.A. et al. (2001) *J Struct Biol* 135, 198–204.



Western blot analysis of extracts from various cell lines using CCT2 Antibody.

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.*

***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	1:100

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.