Revision 1

CDC37 (V297) Antibody

#3618 Store at -20C

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	50	Rabbit	#Q16543	11140

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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.

Specificity/Sensitivity

CDC37 (V297) Antibody detects endogenous levels of total CDC37 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding V297 of human CDC37. Antibodies are purified by peptide affinity chromatography.

Background

CDC37 is an important component of the HSP90 chaperone complex (1,2). It was initially identified for its involvement in cell-cycle progression and was later found to have a much broader role as a chaperone for a wide variety of kinases and other proteins (1-3). CDC37 protein has an amino-terminal kinase binding domain followed by a central HSP90 binding domain. It recruits and stabilizes kinases in the HSP90 complex by protecting the newly synthesized kinase peptide chain from degradation and promoting the next step of protein maturation (4,5). CDC37 also suppresses the ATPase activity of HSP90, thereby leading to conformational changes in the complex that preclude target kinase loading (6). CDC37 has been proposed as a therapeutic target because of its important role in multiple kinase pathways involved in proliferation and cancer cell survival, including Raf, Akt, Src, and ErbB2 pathways (7,8).

Background References

1. Karnitz, L.M. and Felts, S.J. (2007) *Sci STKE* 2007, pe22.
2. Caplan, A.J. et al. (2007) *Trends Cell Biol* 17, 87-92.
3. Caplan, A.J. et al. (2007) *Cell Cycle* 6, 3145-7.
4. Mandal, A.K. et al. (2007) *J Cell Biol* 176, 319-28.
5. Lee, P. et al. (2002) *J Cell Biol* 159, 1051-9.
6. Siligardi, G. et al. (2002) *J Biol Chem* 277, 20151-9.
7. Kimura, Y. et al. (1997) *Genes Dev* 11, 1775-85.
8. Gray, P.J. et al. (2008) *Nat Rev Cancer* 8, 491-5.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Limited Uses

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