Revision 1

Store at -20C

#13248

Phospho-CDC37 (Ser13) (D8P8F) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	50	Rabbit IgG	#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, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-CDC37 (Ser13) (D8P8F) Rabbit mAb recognizes endogenous levels of CDC37 protein only when phosphorylated at Ser13.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser13 of human CDC37 protein.

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).
CDC37 is phosphorylated by CKII at its carboxy-terminal Ser13 residue; this phosphorylation is required for its interaction with HSP90 and target protein stabilization function (9,10).

Background References

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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.
9. Shao, J. et al. (2003) *J Biol Chem* 278, 38117-20.
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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

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