Revision 3

Store at -20C

#4901

Phospho-cdc25C (Ser216) (63F9) Rabbit mAb

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, IP, IHC-P	H Mk	Endogenous	60	Rabbit IgG	#P30307	995

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:100

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.

For a carrier free (BSA and azide free) version of this product see product #30790.

Specificity/Sensitivity

Phospho-cdc25C (Ser216) (63F9) Rabbit mAb detects endogenous levels of cdc25C only when phosphorylated at Ser216.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser216 of human cdc25C.

Background

Cdc25 is a protein phosphatase responsible for dephosphorylating and activating cdc2, a crucial step in regulating the entry of all eukaryotic cells into mitosis (1). cdc25C is constitutively phosphorylated at Ser216 throughout interphase by c-TAK1, while phosphorylation at this site is DNA damage-dependent at the G2/M checkpoint (2). When phosphorylated at Ser216, cdc25C binds to members of the 14-3-3 family of proteins, sequestering cdc25C in the cytoplasm and thereby preventing premature mitosis (3). The checkpoint kinases Chk1 and Chk2 phosphorylate cdc25C at Ser216 in response to DNA damage (4,5).

Background References

1. Jessus, C. and Ozon, R. (1995) *Prog. Cell Cycle Res.* 1, 215-228.
2. Peng, C.Y. et al. (1997) *Science* 277, 1501-1505.
3. Kumagai, A. and Dunphy, W.G. (1999) *Genes Dev.* 13, 1067-1072.
4. Blasina, A. et al. (1999) *Curr. Biol.* 9, 1-10.
5. Furnari, B. et al. (1999) *Mol. Biol. Cell* 10, 833-845.

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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Limited Uses

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