

Rabbit anti-Human, Mouse CDC25C Polyclonal Antibody | anti-CDC25C antibody

Phospho-CDC25C (Ser216) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321587	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CDC25C; Polyclonal Antibody; Phospho-CDC25C (Ser216) Antibody; CDC 25; Cdc 25C; CDC25; Cell division cycle 25 homolog C; Cell division cycle 25C; Cell division cycle 25C protein; Dual specificity phosphatase Cdc25C; M phase inducer phosphatase 3; M-phase inducer phosphatase 3; Mitosis inducer CDC25; MPIP3; MPIP3_HUMAN; Phosphotyrosine phosphatase; PPP1R60; protein phosphatase 1; regulatory subunit 60; anti-CDC25C antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-CDC25C (Ser216) antibody detects endogenous levels of CDC25C only when phosphorylated at Serine 216
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	473
Applicable Applications for anti-CDC25C antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CDC25C around the phosphorylation site of Serine 216
Subcellular Location	Nucleus.
Tissue Specificity	Expressed predominantly in G2 phase.
Predicted Cross Reactivity	Horse, Dog, Xenopus
Similarity	Horse (90%), Dog (90%), Xenopus (90%)
Conjugation	Unconjugated
Epitope	Phospho Ser216
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)
AAA321587 at 1/100 staining human breast carcinoma tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IF (Immunofluorescence)
AAA321587 staining RAW264.7 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of CDC25C phosphorylation expression in serum treated HuvEc whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CDC25C antibody

Description: A member of the MPI phosphatase family. Activates the cyclin dependent kinase CDC2 by removing two phosphate groups and it is required for entry into mitosis. Shuttles between the nucleus and the cytoplasm due to nuclear localization and nuclear export signals.

Function: Functions as a dosage-dependent inducer in mitotic control. Tyrosine protein phosphatase required for progression of the cell cycle. When phosphorylated, highly effective in activating G2 cells into prophase. Directly dephosphorylates CDK1 and activates its kinase activity.

Subunit Structure: Interacts with HIV-1 Vpr, thereby inactivating CDC25C phosphatase activity. Interacts with MAPK14 and 14-3-3 proteins. When phosphorylated on Ser-129 and/or Thr-130, interacts with PLK1.

Post-translational Modifications: Phosphorylated by CHEK1 and MAPK14 at Ser-216. This phosphorylation creates a binding site for 14-3-3 protein and inhibits the phosphatase. Phosphorylated by PLK4. Phosphorylated by PLK1, leading to activate the phosphatase activity. Phosphorylation by PLK3 at Ser-191 promotes nuclear translocation. Ser-198 is a minor phosphorylation site. Was initially reported to be phosphorylated by PLK3 at Ser-216 (PubMed:10557092). However, such phosphorylation by PLK3 was not confirmed by other groups. Phosphorylation at Thr-48, Thr-67, Ser-122, Thr-130, Ser-168 and Ser-214 occurs at G2 and G2-M transition and is probably catalyzed by CDK1. Ser-168 phosphorylation levels are lower than those at the other 5 CDK1 sites. Phosphorylation by CDK1 leads to increased activity.

Similarity: Belongs to the MPI phosphatase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	567316253
NCBI GeneID	995
NCBI Accession #	NP_001274511.1
NCBI GenBank Nucleotide #	NM_001287582.1
UniProt Accession #	P30307; Q96PL3; Q9H168; Q9H2E8; Q9H2E9; Q9H2F1; D3DQB8
Molecular Weight	Observed: 60 kDa Predicted: 54 kDa
NCBI Official Full Name	M-phase inducer phosphatase 3 isoform a
NCBI Official Synonym Full Names	cell division cycle 25C
NCBI Official Symbol	CDC25C
NCBI Official Synonym Symbols	CDC25; PPP1R60

NCBI Protein Information	M-phase inducer phosphatase 3
UniProt Protein Name	M-phase inducer phosphatase 3
UniProt Gene Name	CDC25C

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cdc25c-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321587>