Product Datasheet

CDC25A Antibody

Catalog No: #32202

Package Size: #32202-1 50ul #32202-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

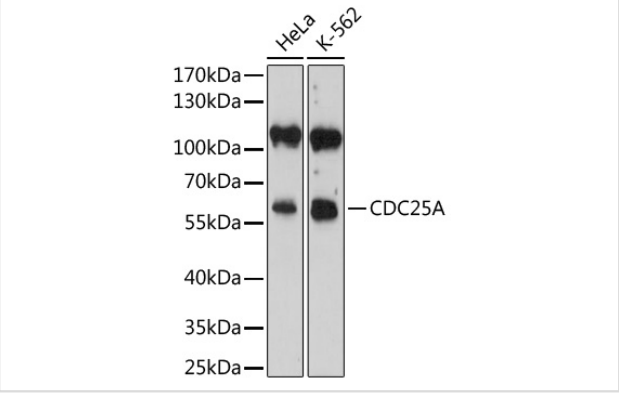
Description

Product Name	CDC25A Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IHC,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total CDC25A protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human CDC25A.
Target Name	CDC25A
Other Names	CDC25A2; CDC25A; cdc25A;
Accession No.	Swiss-Prot:P30304NCBI Gene ID:993
Uniprot	P30304
GeneID	993;
SDS-PAGE MW	59KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

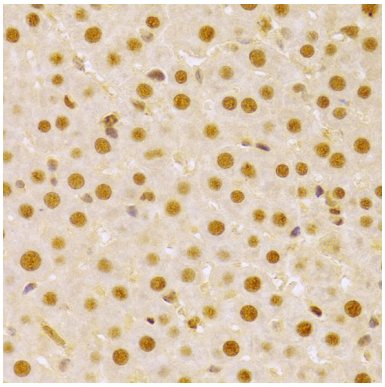
Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200IF□1:50 - 1:200

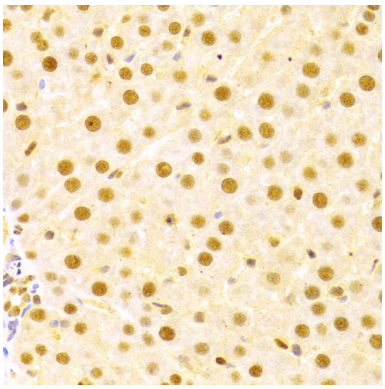
Images



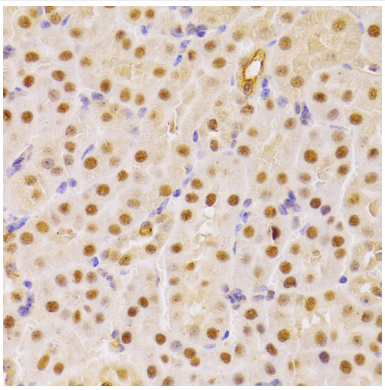
Western blot analysis of extracts of various cell lines, using CDC25A at 1:800 dilution.



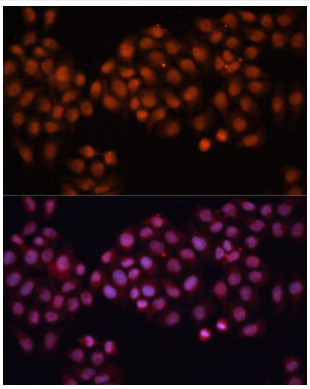
Immunohistochemistry of paraffin-embedded rat liver using CDC25A at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded human liver damage using CDC25A at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse kidney using CDC25A at dilution of 1:100 (40x lens).



Immunofluorescence analysis of HeLa cells using CDC25A Polyclonal at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

Background

The cdc25 protein phosphatase family plays a critical role in activating cyclin-dependent kinases (CDKs) via dephosphorylation of conserved Thr14/Tyr15 inhibitory phosphorylation sites. While cdc25C is primarily responsible for activating CDK1 to overcome the G2/M checkpoint and allow mitotic entry, the primary substrate of cdc25A is CDK2, which, when active, allows progression through the G1/S and intra-S checkpoints (1). Abundance, subcellular localization and activity of cdc25A is tightly controlled by a variety of mechanisms, including phosphorylation, ubiquitination, and inhibitory binding to 14-3-3 proteins. During normal cell cycle progression, elevated c-Myc and E2F transcription factor levels lead to increased cdc25A expression (2). When conditions are favorable for DNA synthesis, cdc25A and CDK2 form an activation loop, wherein each activates the other enzyme (1). DNA damage, on the other hand, leads to multisite phosphorylation at inhibitory sites (Ser123, Ser177, Ser278, Ser292, and Thr506) by

Chk1 and Chk2, which result in 14-3-3 binding and ubiquitin-mediated degradation (3,4).

Note: This product is for in vitro research use only