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Phospho-CDC25A(T507) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5441

Product Information

Application	IF, WB
Primary Accession	P30304
Other Accession	P48965, P48964, A7MBD1
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59087
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	993
Other Names	M-phase inducer phosphatase 1, Dual specificity phosphatase Cdc25A, CDC25A
Dilution	IF~~1:25 WB~~1:1000
Target/Specificity	This CDC25A Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T507 of human CDC25A.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Phospho-CDC25A(T507) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDC25A
Function	Tyrosine protein phosphatase which functions as a dosage- dependent inducer of mitotic progression (PubMed:12676925, PubMed:14559997, PubMed:1836978, PubMed:20360007). Directly dephosphorylates CDK1 and

stimulates its kinase activity (PubMed:20360007). Also dephosphorylates CDK2 in complex with cyclin-E, in vitro (PubMed:20360007).

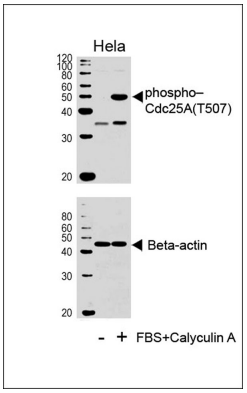
Background

CDC25A is a member of the CDC25 family of phosphatases. CDC25A is required for progression from G1 to the S phase of the cell cycle. It activates the cyclin-dependent kinase CDC2 by removing two phosphate groups. CDC25A is specifically degraded in response to DNA damage, which prevents cells with chromosomal abnormalities from progressing through cell division. CDC25A is an oncogene, although its exact role in oncogenesis has not been demonstrated. Two transcript variants encoding different isoforms have been found for this gene.

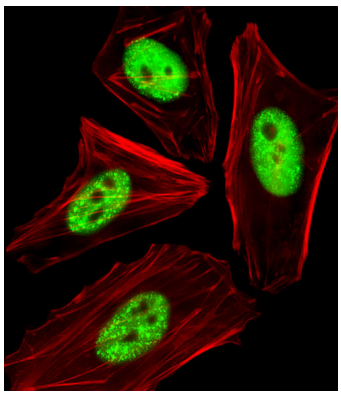
References

Ito, Y., et al., Int. J. Mol. Med. 13(3):431-435 (2004). Nemoto, K., et al., Prostate 58(1):95-102 (2004). Goloudina, A., et al., Cell Cycle 2(5):473-478 (2003). Chen, M.S., et al., Mol. Cell. Biol. 23(21):7488-7497 (2003). Chow, J.P., et al., Mol. Biol. Cell 14(10):3989-4002 (2003).

Images



Western blot analysis of lysates from Hela cell line,untreated or treated with FBS and calyculin A,using Phospho-CDC25A(T507) Antibody(upper) or Beta-actin (lower).



Fluorescent image of HeLa cells stained with Phospho-CDC25A(T507) Antibody(Cat#AW5441). AW5441 was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).