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CDC14B Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9081c

Product Information

Application	WB, FC, E
Primary Accession	O60729
Other Accession	A4D256, Q6PFY9
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB16909
Calculated MW	56802
Antigen Region	188-215

Additional Information

Gene ID	8555
Other Names	Dual specificity protein phosphatase CDC14B, CDC14 cell division cycle 14 homolog B, CDC14B
Target/Specificity	This CDC14B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 188-215 amino acids from the Central region of human CDC14B.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	CDC14B Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDC14B
Function	Dual-specificity phosphatase involved in DNA damage response. Essential regulator of the G2 DNA damage checkpoint: following DNA damage,

translocates to the nucleus and dephosphorylates FZR1/CDH1, a key activator of the anaphase promoting complex/cyclosome (APC/C). Dephosphorylates SIRT2 around early anaphase. Dephosphorylation of FZR1/CDH1 activates the APC/C, leading to the ubiquitination of PLK1, preventing entry into mitosis. Preferentially dephosphorylates proteins modified by proline-directed kinases.

Cellular Location

Nucleus, nucleolus. Nucleus, nucleoplasm. Note=Following DNA damage, translocates from the nucleolus to the nucleoplasm and interacts with FZR1/CDH1

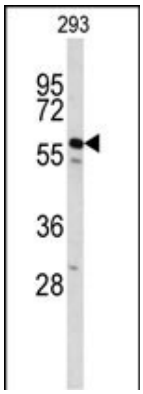
Background

CDC14B is a member of the dual specificity protein tyrosine phosphatase family. This protein is highly similar to Saccharomyces cerevisiae Cdc14, a protein tyrosine phosphatase involved in the exit of cell mitosis and initiation of DNA replication, which suggests the role in cell cycle control. This protein has been shown to interact with and dephosphorylates tumor suppressor protein p53, and is thought to regulate the function of p53. Alternative splice of this gene results in 3 transcript variants encoding distinct isoforms.

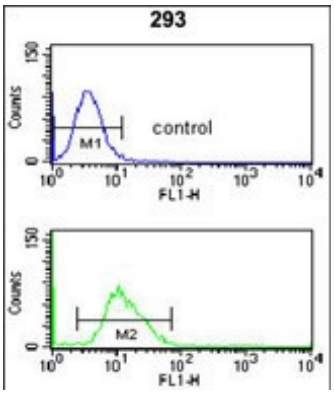
References

Bassermann,F., et.al., Cell 134 (2), 256-267 (2008)
Rosso,L., et.al., PLoS Biol. 6 (6), E140 (2008)

Images



Western blot analysis of CDC14B Antibody (Center) (Cat. #AP9081c) in 293 cell line lysates (35ug/lane). CDC14B (arrow) was detected using the purified Pab.



CDC14B Antibody (Center) (Cat. #AP9081c) flow cytometry analysis of 293 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.