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Cdc14A Rabbit pAb

Catalog # AP99327

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9UNH5
Other Accession	Q9UNH5
Reactivity	Human, Mouse
Predicted	Rat, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66574
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Cdc14A
Epitope Specificity	51-150/594
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein-tyrosine phosphatase family. Non-receptor class CDC14 subfamily.
SUBUNIT	Interacts with KIF20A, which is required to localize CDC14 to the midzone of the mitotic spindle.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	In budding yeast, the Cdc14a phosphatase activates mitotic exit by dephosphorylation of specific cyclin-dependent kinase (Cdk) substrates and seems to be regulated by sequestration in the nucleolus until its release during mitosis. Human Cdc14a phosphatase is highly similar to Saccharomyces cerevisiae Cdc14 and is a member of the dual specificity protein Tyrosine phosphatase family. It interacts with and dephosphorylates tumor suppressor protein p53 and may regulate the function of p53. In addition, Cdc14a dephosphorylates hCdh1 and activates APCCdh1. Cdc14a phosphatase plays a role in the regulation of the centrosome cycle, mitosis and cytokinesis, thereby influencing chromosome partitioning and genomic stability in human cells. Deregulated human Cdc14a phosphatase disrupts centrosome separation and chromosome segregation.

Additional Information

Gene ID	8556
Other Names	DFNB105; DFNB32; DFNB35; cdc14; hCDC14; A830059A17Rik; CDC14A2; CDC14a1; CC14A_HUMAN; CDC14A; CDC14 cell division cycle 14 homolog A; 3.1.3.16; 3.1.3.48; CC14A_MOUSE; cell division cycle 14A; CDC10 (cell division cycle 10, S. cerevisiae, homolog); CDC14 cell division cycle 14 homolog A (S. cerevisiae); deafness, autosomal recessive 32

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CDC14A
Function	Dual-specificity phosphatase. Required for centrosome separation and productive cytokinesis during cell division. Dephosphorylates SIRT2 around early anaphase. May dephosphorylate the APC subunit FZR1/CDH1, thereby promoting APC-FZR1 dependent degradation of mitotic cyclins and subsequent exit from mitosis. Required for normal hearing (PubMed:29293958).
Cellular Location	Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle pole. Cytoplasm, cytoskeleton, spindle. Cell projection, kinocilium {ECO:0000250|UniProtKB:Q6GQT0}. Cell projection, stereocilium {ECO:0000250|UniProtKB:Q6GQT0}. Note=Centrosomal during interphase, released into the cytoplasm at the onset of mitosis. Subsequently localizes to the mitotic spindle pole and at the central spindle (PubMed:11901424, PubMed:12134069, PubMed:15263015). Present along both the transient kinocilia of developing cochlear hair cells and the persistent kinocilia of vestibular hair cells (By similarity) {ECO:0000250|UniProtKB:Q6GQT0, ECO:0000269|PubMed:11901424, ECO:0000269|PubMed:12134069, ECO:0000269|PubMed:15263015}

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.