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CDC5L Rabbit pAb

Catalog # AP96926

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q99459
Other Accession	Q99459
Reactivity	Human, Mouse
Predicted	Rat, Pig, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	92251
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CDC5L
Epitope Specificity	651-750/802
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 CEF1 family.Contains 2 HTH myb-type DNA-binding domains.
SUBUNIT	Homodimer. Interacts with DAPK3 (By similarity). Binds DNA. Binds to adeno-pre-mRNA in an ATP-stimulated manner. Belongs to the spliceosome complex. Part of a spliceosomal 'core' complex consisting of CDC5L, PLRG1, SPF27, CCAP1, CCAP3 and CCAP6. Interacts with PLRG1, Lodestar/TTF2, and NIPP1/PPP1R8. Identified in the spliceosome C complex. Component of the PRP19-CDC5L splicing complex composed of a core complex comprising a homotetramer of PRPF19, CDC5L, PLRG1 and BCAS2, and at least three less stably associated proteins CTNNBL1, CWC15 and HSPA8. Interacts (via its C-terminus) directly in the complex with PRPF19 and BCAS2. Interacts (via its C-terminus) directly with PRGL1 (via its WD40 repeat domain); the interaction is required for mRNA splicing but not for spliceosome assembly. Also interacts with CTNNBL1.
Post-translational modifications	Phosphorylated on serine and threonine residues. Phosphorylation on Thr-411 and Thr-438 is required for CDC5L-mediated mRNA splicing. Has no effect on subcellular location nor on homodimerization. Phosphorylated in vitro by CDK2. Phosphorylation enhances interaction with PPP1R8.
DISEASE	Note=A chromosomal aberration involving CDC5L is found in multicystic renal dysplasia. Translocation t(6;19)(p21;q13.1) with USF2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene shares a significant similarity with Schizosaccharomyces pombe cdc5 gene product, which is a cell cycle regulator important for G2/M transition. This protein has been demonstrated to act as a positive regulator of cell cycle G2/M progression. It was also found to be an essential component of a non-snRNA spliceosome, which contains at least five additional protein factors and is required for the second catalytic step of pre-mRNA splicing. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	988
Other Names	CDC5L_HUMAN; CDC5L; Cdc5-like protein; Pombe cdc5-related protein; KIAA0432; PCDC5RP; CDC5L_MOUSE; CDC5L_RAT; cell division cycle 5 like; CDC5 (cell division cycle 5, S. pombe, homolog)-like; CDC5 cell division cycle 5-like (S. pombe); cell division cycle 5-like
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	CDC5L
Synonyms	KIAA0432, PCDC5RP
Function	DNA-binding protein involved in cell cycle control. May act as a transcription activator. Plays a role in pre-mRNA splicing as core component of precatalytic, catalytic and postcatalytic spliceosomal complexes (PubMed:11991638, PubMed:20176811, PubMed:28076346, PubMed:28502770, PubMed:29301961, PubMed:29360106, PubMed:29361316, PubMed:30705154, PubMed:30728453). Component of the PRP19-CDC5L complex that forms an integral part of the spliceosome and is required for activating pre-mRNA splicing. The PRP19-CDC5L complex may also play a role in the response to DNA damage (DDR) (PubMed:20176811). As a component of the minor spliceosome, involved in the splicing of U12- type introns in pre-mRNAs (Probable).
Cellular Location	Nucleus. Nucleus speckle. Cytoplasm Note=May shuttle between cytoplasm and nucleus
Tissue Location	Ubiquitously expressed in both fetal and adult tissues.

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