

KD-Validated Anti-CINP Mouse Monoclonal Antibody

Mouse monoclonal antibody

Catalog # AGI2021

Product Information

Application	WB, FC
Primary Accession	Q9BW66
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Names	24GB8100
Calculated MW	24324
Gene Name	CINP
Aliases	CINP; Cyclin Dependent Kinase 2 Interacting Protein; Cyclin-Dependent Kinase 2-Interacting Protein; CDK2-Interacting Protein; MGC849
Immunogen	Recombinant protein of human CINP

Additional Information

Gene ID	51550
Other Names	Cyclin-dependent kinase 2-interacting protein, CDK2-interacting protein, CINP {ECO:0000303 PubMed:19889979, ECO:0000312 HGNC:HGNC:23789}

Protein Information

Name	CINP {ECO:0000303 PubMed:19889979, ECO:0000312 HGNC:HGNC:23789}
Function	Component of the DNA replication complex, which interacts with two kinases, CDK2 and CDC7, thereby providing a functional and physical link between CDK2 and CDC7 during firing of the origins of replication (PubMed: 16082200 , PubMed: 19889979). Regulates ATR-mediated checkpoint signaling in response to DNA damage (PubMed: 16082200 , PubMed: 19889979). Part of the 55LCC heterohexameric ATPase complex which is chromatin-associated and promotes replisome proteostasis to maintain replication fork progression and genome stability. Required for replication fork progression, sister chromatid cohesion, and chromosome stability. The ATPase activity is specifically enhanced by replication fork DNA and is coupled to cysteine protease-dependent cleavage of replisome substrates in response to replication fork damage. Uses ATPase activity to process replisome substrates in S- phase, facilitating their proteolytic turnover from chromatin to ensure DNA replication and mitotic fidelity (PubMed: 38554706). As part of 55LCC complex, also involved in the cytoplasmic maturation steps of pre-60S ribosomal particles by promoting the release of shuttling protein RSL24D1/RLP24 from the pre-ribosomal particles (PubMed: 35354024).

Cellular Location

Nucleus. Note=Binds to nuclear under G1 conditions, and dissociates from chromatin with the start of DNA replication.

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