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Anti-CDC46 Antibody

Catalog # AP51338

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P33992
Reactivity	Human, Mouse, Rat, Rabbit, Chicken, Bovine, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82286

Additional Information

Gene ID	4174
Other Names	CDC46; DNA replication licensing factor MCM5; CDC46 homolog; P1-CDC46
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human CDC46. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

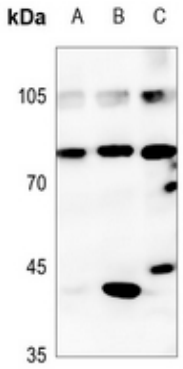
Name	MCM5
Synonyms	CDC46
Function	Acts as a component of the MCM2-7 complex (MCM complex) which is the replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells (PubMed:40940420). Core component of CDC45-MCM-GINS (CMG) helicase, the molecular machine that unwinds template DNA during replication, and around which the replisome is built (PubMed:16899510, PubMed:32453425, PubMed:34694004, PubMed:34700328, PubMed:35585232). The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity (PubMed:32453425).
Cellular Location	Nucleus. Chromosome Note=Associated with chromatin before the formation

of nuclei and detaches from it as DNA replication progresses

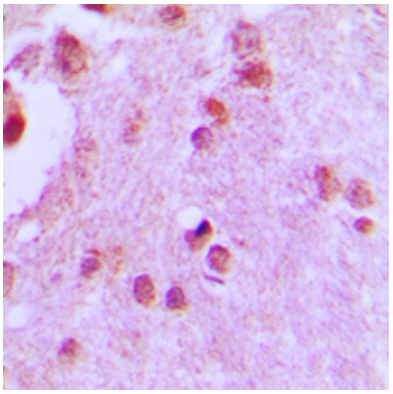
References

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Goehring F.,et al.Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
Mimura S.,et al.Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
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Dunham I.,et al.Nature 402:489-495(1999).

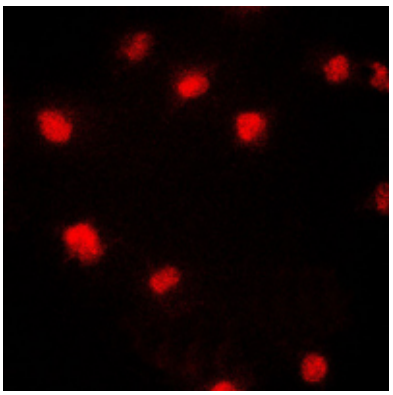
Images



Western blot analysis of CDC46 expression in mouse spleen (A), mouse kidney (B), rat spleen (C) whole cell lysates. (Predicted band size: 82 kD; Observed band size: 95 kD)



Immunohistochemical analysis of CDC46 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of CDC46 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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