



CCDC111/PRIMPOL Mouse mAb

Catalog No	YP-mAb-19520
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB
Gene Name	CCDC111
Immunogen	Synthesized peptide derived from human CCDC111/PRIMPOL. AA range:264-334
Specificity	This antibody detects endogenous levels of CCDC111/PRIMPOL at Human, Mouse,Rat
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal,Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-15°C to -25°C/1 year(Do not lower than -25°C)
Synonyms	CCDC111;Coiled-coil domain-containing protein 111
Observed Band	
Calculated Molecular Weight	62kD
Cell Pathway	Nucleus . Mitochondrion matrix . Chromosome . Present in the nucleus , but a larger fraction is localized inside mitochondria (PubMed:24207056) . Associates with nuclear chromatin during the G1 and S phases of unperturbed cell cycles (PubMed:24207056) . Recruited to stalled replication forks following interaction with RPA1 (PubMed:28534480) . .
Tissue Specificity	
Function	DNA primase and DNA polymerase required to tolerate replication-stalling lesions by bypassing them . Required to facilitate mitochondrial and nuclear replication fork progression by initiating de novo DNA synthesis using dNTPs and acting as an error-prone DNA polymerase able to bypass certain DNA lesions . Shows a high capacity to tolerate DNA damage lesions such as 8oxoG and abasic sites in DNA . Provides different translesion synthesis alternatives when DNA replication is stalled: able to synthesize DNA primers downstream of lesions , such as ultraviolet (UV) lesions , R-loops and G-quadruplexes , to allow DNA replication to continue . Can also realign primers ahead of 'unreadable lesions' such as abasic sites and 6-4 photoproduct (6-4 pyrimidine-pyrimidinone) , thereby skipping the lesion . Also able to incorporate nucleotides opposite DNA lesions such as 8oxoG



, like a regular translesion synthesis DNA polymerase . Also required for reinitiating stalled forks after UV damage during nuclear DNA replication . Required for mitochondrial DNA (mtDNA) synthesis and replication , by reinitiating synthesis after UV damage or in the presence of chain-terminating nucleotides . Prevents APOBEC family-mediated DNA mutagenesis by repriming downstream of abasic site to prohibit error-prone translesion synthesis (By similarity) . Has non-overlapping function with POLH . In addition to its role in DNA damage response , also required to maintain efficient nuclear and mitochondrial DNA replication in unperturbed cells . ; Involved in adaptive response to cisplatin , a chemotherapeutic that causes reversal of replication forks , in cancer cells: reinitiates DNA synthesis past DNA lesions in BRCA1-deficient cancer cells treated with cisplatin via its de novo priming activity . Repriming rescues fork degradation while leading to accumulation of internal ssDNA gaps behind the forks . ATR regulates adaptive response to cisplatin .

Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images