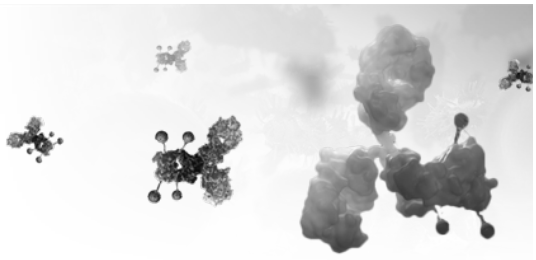

Mouse anti-Human DNA Polymerase δ monoclonal antibody, clone 33/EOB (CABT-B9194)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human DNA Polymerase δ aa. 60-261
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Rat
Clone	33/EOB
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 μg/ml
Size	50 μg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

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Introduction	Errors in DNA sequence result from environmental factors or are committed by DNA polymerases during replication. If unchecked, these errors might accumulate genetic damage such that the cell could no longer function. Thus, DNA repair processes involve mechanisms for the excision of damaged sequences and the resynthesis and ligation of the proper sequence. In mammalian cells, this proofreading function rests with DNA polymerase (pol) δ, a heterodimer of a 50kDa subunit, which stimulates pol δ activity in the presence of PCNA (proliferating cell nuclear antigen) and a 125kDa catalytic subunit. The catalytic subunit has 3' to 5' exonuclease activity which distinguishes pol δ from pol α and pol β. Pol δ is also central to DNA replication where it functions in leading strand synthesis at the replication fork. The catalytic subunit is phosphorylated by G1 cyclin-dependent kinase-cyclin complexes and, via its N-terminal 249 amino acids, interacts with cdk2. However, phosphorylation has little or no effect on the activity of pol δ. Thus, DNA polymerase ä is essential for DNA replication and is unique in its ability to replace damaged sequences through the process of DNA excision repair.
Keywords	DNA polymerase delta; Pol delta; DNA polymerase δ; Pol δ

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