

产品名称: DNA pol θ Rabbit Polyclonal Antibody
产品货号: APRab10062



产品概述 (Summary)

产品名称 (Production Name)	DNA pol θ Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	IHC, ICC, IF, ELISA
种属反应性 (Reactivity)	Human, Rat, Mouse

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	POLQ
别名 (Alternative Names)	POLQ; POLH; DNA polymerase theta; DNA polymerase eta
基因 ID (Gene ID)	10721.0
蛋白 ID (SwissProt ID)	O75417. The antiserum was produced against synthesized peptide derived from human POLQ. AA range: 181-230

产品应用 (Application)

稀释比 (Dilution Ratio)	IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000
蛋白分子量 (Molecular Weight)	

研究背景 (Background)

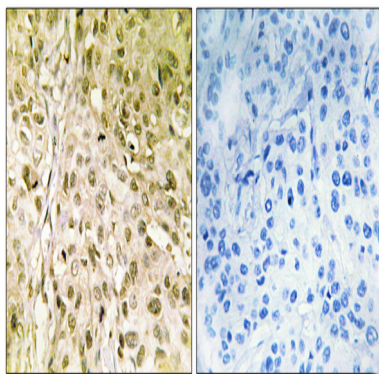
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POLQ (Polymerase (DNA) Theta) is a Protein Coding gene. Among its related pathways are Platinum Pathway, Pharmacokinetics/Pharmacodynamics and DNA Double-Strand Break Repair. GO annotations related to this gene include nucleic acid binding and damaged DNA binding. An important paralog of this gene is SNRNP200. NA polymerase that promotes microhomology-mediated end-joining (MMEJ), an alternative non-homologous end-joining (NHEJ) machinery triggered in response to double-strand breaks in DNA (PubMed: 25642963, PubMed: 25643323). MMEJ is an error-prone repair pathway that produces deletions of sequences from the strand being repaired and promotes genomic rearrangements, such as telomere fusions, some of them leading to cellular transformation (PubMed: 25642963, PubMed: 25643323). POLQ acts as an inhibitor of homology-recombination repair (HR) pathway by limiting RAD51 accumulation at resected ends (PubMed: 25642963). POLQ-mediated MMEJ may be required to promote the survival of cells with a compromised HR repair pathway, thereby preventing genomic havoc by resolving unrepaired lesions (By similarity). The polymerase acts by binding directly the 2 ends of resected double-strand breaks, allowing microhomologous sequences in the overhangs to form base pairs. It then extends each strand from the base-paired region using the opposing overhang as a template. Requires partially resected DNA containing 2 to 6 base pairs of microhomology to perform MMEJ (PubMed: 25643323). The polymerase activity is highly promiscuous: unlike most polymerases, promotes extension of ssDNA and partial ssDNA (pssDNA) substrates (PubMed: 18503084, PubMed: 21050863, PubMed: 22135286). Also exhibits low-fidelity DNA synthesis, translesion synthesis and lyase activity, and it is implicated in interstrand-cross-link repair, base excision repair and DNA end-joining (PubMed: 14576298, PubMed: 18503084, PubMed: 19188258, PubMed: 24648516). Involved in somatic hypermutation of immunoglobulin genes, a process that requires the activity of DNA polymerases to ultimately introduce mutations at both A/T and C/G base pairs (By similarity).

研究领域 (Research Area)

图片 (Image Data)



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using DNA Polymerase theta Antibody. The picture on the right is blocked with the synthesized peptide.

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注意事项 (Note)

For research use only .