POLH Rabbit pAb

CatalogNo: YN1984

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse

Applications
- WB,ELISA

MW
- 78kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

WB 1:500-2000
ELISA 1:5000-20000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from part region of human protein
Specificity	POLH Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name	POLH RAD30 RAD30A XPV

Protein Name DNA polymerase eta (RAD30 homolog A) (Xeroderma pigmentosum variant type protein)

Organism	Gene ID	UniProt ID
Human	5429;	Q9Y253;
Mouse		Q9JJN0;

Cellular Localization Nucleus . Binding to ubiquitinated PCNA mediates colocalization to replication foci during DNA replication and persists at sites of stalled replication forks following UV irradiation (PubMed:12606586, PubMed:16357261, PubMed:24553286). After UV irradiation, recruited to DNA damage sites within 1 hour, to a maximum of about 80%; this recruitment may not be not restricted to cells active in DNA replication (PubMed:22801543). Colocalizes with TRAIP to nuclear foci (PubMed:24553286). .

Tissue specificity Cervix carcinoma,Epithelium,Skin,

Function Catalytic activity:Deoxynucleoside triphosphate + DNA(n) = diphosphate + DNA(n+1).,cofactor:Divalent metal cations. Prefers magnesium, but can also use manganese.,Disease:Defects in POLH are the cause of xeroderma pigmentosum variant type (XPV) [MIM:278750]; also designated as XP-V. Xeroderma pigmentosum (XP) is an autosomal recessive disease due to deficient nucleotide excision repair. It is characterized by hypersensitivity of the skin to sunlight, followed by high incidence of skin cancer and frequent neurologic abnormalities. XPV shows normal nucleotide excision repair, but an exaggerated delay in recovery of replicative DNA synthesis. Most XPV patients do not develop clinical symptoms and skin neoplasias until a later age. Clinical manifestations are limited to photo-induced deterioration of the skin and eyes.,Domain:The catalytic core consists of fingers, palm and thumb subdomains, but the fingers and thumb subdomains are much smaller than in high-fidelity polymerases; residues from five sequence motifs of the Y-family cluster around an active site cleft that can accommodate DNA and nucleotide substrates with relaxed geometric constraints, with consequently higher rates of misincorporation and low processivity.,Function:DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high fidelity DNA polymerases cannot proceed and DNA synthesis stalls. Plays an important role in the repair of UV-induced pyrimidine dimers. Depending on the context, it inserts the correct base, but causes frequent base transitions and transversions. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have lyase activity. Targets POLI to replication foci.,similarity:Belongs to the DNA polymerase type-Y family.,similarity:Contains 1 umuC domain.,subcellular location:Accumulates at replication forks after DNA damage.,subunit:Binds REV1L (By similarity). Binds monoubiquitinated PCNA, but not unmodified PCNA. Binds POLI.,

Validation Data

Contact information

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Please scan the QR code to access additional product information:
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