**Product Name:** **DNA pol γ2 Rabbit Polyclonal Antibody**
**Catalog #:** **APRab10055**
For research use only.

## Summary

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|---|---|
| **Description** | Rabbit polyclonal Antibody |
| **Host** | Rabbit |
| **Application** | IHC,ICC/IF,ELISA |
| **Reactivity** | Human,Rat,Mouse |
| **Conjugation** | Unconjugated |
| **Modification** | Unmodified |
| **Isotype** | IgG |
| **Clonality** | Polyclonal |
| **Form** | Liquid |
| **Concentration** | 1mg/ml |
| **Storage** | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| **Shipping** | Ice bags |
| **Buffer** | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| **Purification** | Affinity purification |

## Application

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|---|---|
| **Dilution Ratio** | IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000 |
| **Molecular Weight** | |

## Antigen Information

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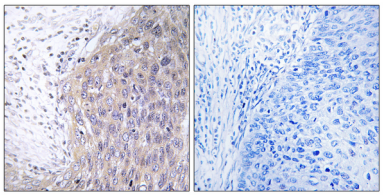
|---|---|
| **Gene Name** | POLG2 |
| **Alternative Names** | POLG2; MTPOLB; DNA polymerase subunit gamma-2; mitochondrial; DNA polymerase gamma accessory 55 kDa subunit; p55; Mitochondrial DNA polymerase accessory subunit; MtPolB; PolG-beta |
| **Gene ID** | 11232.0 |
| **SwissProt ID** | Q9UHN1 |
| **Immunogen** | The antiserum was produced against synthesized peptide derived from human POLG2. AA range:291-340 |

## Background

This gene encodes the processivity subunit of the mitochondrial DNA polymerase gamma. The encoded protein forms a heterotrimer containing one catalytic subunit and two processivity subunits. This protein enhances DNA binding and promotes processive DNA synthesis. Mutations in this gene result in autosomal dominant progressive external ophthalmoplegia with mitochondrial DNA deletions.[provided by RefSeq, Sep 2009],catalytic activity:Deoxynucleoside triphosphate + DNA(n) = diphosphate + DNA(n+1).,disease:Defects in POLG2 are the cause of progressive external ophthalmoplegia with mitochondrial DNA deletions autosomal dominant type 4 (PEOA4) [MIM:610131]. Progressive external ophthalmoplegia is characterized by progressive weakness of ocular muscles and levator muscle of the upper eyelid. In a minority of cases, it is associated with skeletal myopathy, which predominantly involves axial or proximal muscles and which causes abnormal fatigability and even permanent muscle weakness. Ragged-red fibers and atrophy are found on muscle biopsy. A large proportion of chronic ophthalmoplegias are associated with other symptoms, leading to a multisystemic pattern of this disease. Additional symptoms are variable, and may include cataracts, hearing loss, sensory axonal neuropathy, ataxia, depression, hypogonadism, and parkinsonism.,function:Mitochondrial polymerase processivity subunit. Stimulates the polymerase and exonuclease activities, and increases the processivity of the enzyme. Binds to ss-DNA.,subunit:Heterotrimer composed of a catalytic subunit and an homodimer of accessory subunits.,

## Research Area

## Image Data



Immunohistochemistry analysis of paraffin-embedded human cervix carcinoma tissue, using POLG2 Antibody. The picture on the right is blocked with the synthesized peptide.