Anti-DNA polymerase δ subunit 3 / p66 antibody, monoclonal (2A1C11)

70-056　100 ug

DNA polymerase δ is one of the three eukaryotic DNA polymerases which are essential for chromosome replication, and is also involved in nucleotide excision repair, base excision repair and VDJ recombination (1, 2). Subunit 3/p66 is a functionally important subunit of human polymerase δ which stabilizes polymerase δ complex and increases the affinity of polymerase δ for PCNA (3).

This product is the IgG fraction purified from serum-free culture medium of mouse hybridoma (2A1C11) by propriety chromatography under mild conditions.

Applications:

1) Western blotting　(1/2,000 dilution

2) Immunoprecipitation (Assay dependent)

Other applications have not been tested.

Antigen: Recombinant human p66 subunit of DNA polymerase δ

Reactivity: Human p66 protein. Not tested with other species

Isotype: IgG2B (kappa)

Form: Purified monoclonal antibody (IgG) 1mg/ml in PBS (pH 7.4), 50% glycerol, sterile-filtered, azide free

Storage: Shipped at 4℃ or -20℃ and stored at -20℃.

Data link:　UniProtKB/Swiss-Prot Q15054 (DPOD3_HUMAN)

References: This product was used in references 3.

1. Hindges R and Hubscher U "DNA polymerase delta, an essential enzyme for DNA transactions" *Biol Chem* **378**: 345-362 (1997) PMID: 9191022
2. Johnson A and O'Donnell M "Cellular DNA replicases: components and dynamics at the replication fork" *Annu Rev Biochem* **74**: 283-315 (2005) PMID: 15952889
3. Shikata K *et al* "The human homologue of fission Yeast cdc27, p66, is a component of active human DNA polymerase delta" *J Biochem* **129**: 699-708 (2001) PMID: 11328591

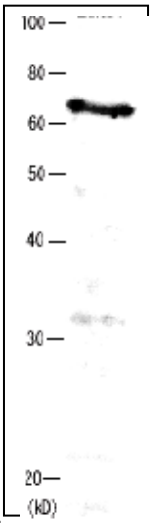

Fig.1 Detection of p66 protein of polymerase δ by Western blotting.

p66 protein in extract of MCF7 cells was detected with antibody 2A1C11 The antiserum was used at 1/2,000 dilution.

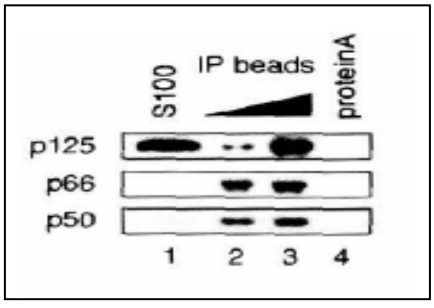

Fig. 2　Immunoprecipitation of　subunit p66/3 of DNA polymerase　δ.　Lane 1. S100 extract of human 293 cells (37.5 μg) was analyzed by western blotting with anti-p125, p66 and p50 antibodies. Much less p66 and p55 subunits than p125 were found in the S100 extract. **Lanes 2 and 3**. Coimmunoprecipitation of pol δ subunits from the S100 extract using antibody 2A1C11-bound protein A Sepharose beads. The antibody bound proteins were eluted and detected by western blotting with respective antibodies. Eluted fractions in lane 2 and 3 were 2.5 μl and 5 μl out of 10 ul eluted fraction. **Lane 4**, Eluted fraction (10 μl) from antibody-free protein A beads as a negative control.

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