

PRIM1 (K-25): sc-133925

BACKGROUND

In eukaryotic cells, the replication of DNA is carried out by a variety of proteins and requires a complex chromosomal replication structure, of which POLA2 (DNA polymerase alpha) and DNA primases (PRIMs) are key components. PRIM1 (DNA primase small subunit), also known as p49, is a 420 amino acid protein that exists as a heterodimer with PRIM2A, another DNA primase. Together, PRIM1 and PRIM2A function to synthesize small RNA primers that are required for the proper activity of Okazaki fragments during replication of the DNA lagging strand. Interestingly, the gene encoding PRIM1 is coamplified with other core 12q13 amplicon genes in human osteosarcoma. In the retina of zebrafish, mutations in PRIM1 were observed to not affect cell proliferation, though neuronal apoptosis was induced. It is likely that such mutations in PRIM1 leads to activation of the ATM-Chk2-p53 apoptotic pathway.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PRIM1 (human) mapping to 12q13.2; Prim1 (mouse) mapping to 10 D3.

SOURCE

PRIM1 (K-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic PRIM1 peptide of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

PRIM1 (K-25) is recommended for detection of PRIM1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PRIM1 siRNA (h): sc-95796, PRIM1 siRNA (m): sc-152465, PRIM1 shRNA Plasmid (h): sc-95796-SH, PRIM1 shRNA Plasmid (m): sc-152465-SH, PRIM1 shRNA (h) Lentiviral Particles: sc-95796-V and PRIM1 shRNA (m) Lentiviral Particles: sc-152465-V.

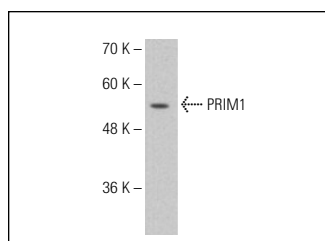
Molecular Weight of PRIM1: 49 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



PRIM1 (K-25): sc-133925. Western blot analysis of PRIM1 expression in K-562 whole cell lysate.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.


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Try **PRIM1 (H-9): sc-390265**, our highly recommended monoclonal alternative to PRIM1 (K-25).