

PRIM2A (N-13): sc-107970

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 α) and DNA primases (PRIMs) are key components. PRIM2A (primase, DNA, polypeptide 2A), also known as p58, is a 509 amino acid protein that exists as a heterodimer with PRIM1, another DNA primase. Together, PRIM2A and PRIM1 function to synthesize small RNA primers that are required for the proper activity of Okazaki fragments during replication of the DNA lagging strand. Multiple isoforms of PRIM2A exist due to alternative splicing events. The gene encoding PRIM2A maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

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CHROMOSOMAL LOCATION

Genetic locus: PRIM2 (human) mapping to 6p11.2; Prim2 (mouse) mapping to 1 B.

SOURCE

PRIM2A (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PRIM2A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107970 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-107970 X, 200 μ g/0.1 ml.

APPLICATIONS

PRIM2A (N-13) is recommended for detection of PRIM2A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family member PRIM1.

Suitable for use as control antibody for PRIM2A siRNA (h): sc-95096, PRIM2A siRNA (m): sc-152466, PRIM2A shRNA Plasmid (h): sc-95096-SH, PRIM2A shRNA Plasmid (m): sc-152466-SH, PRIM2A shRNA (h) Lentiviral Particles: sc-95096-V and PRIM2A shRNA (m) Lentiviral Particles: sc-152466-V.

PRIM2A (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PRIM2A isoforms: 58/19 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.