**BACKGROUND**

p53, a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor, upregulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation and cell cycle control mechanisms. PRPK (p53-related protein kinase), also known as TP53RK, is a 253 amino acid protein kinase that phosphorylates Ser15 of p53. PRPK phosphorylation of p53 causes increased stabilization and activity of p53. CGI-121 may act as an inhibitor of the PRPK-p53 interaction, thus preventing the phosphorylation of p53. Unphosphorylated p53 is degraded by the ubiquitin-proteasome pathway, which may ultimately lead to cell proliferation. PRPK contains a protein kinase domain with a conserved catalytic core. PRPK is localized to the nucleus of the cell and is highly expressed in testis, with lower expression in heart, kidney and spleen.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TP53RK (human) mapping to 20q13.12; Trp53rk (mouse) mapping to 2 H3.

**SOURCE**

PRPK (G-10) is a mouse monoclonal antibody raised against amino acids 190-253 mapping at the C-terminus of PRPK of human origin.

**PRODUCT**

Each vial contains 200 µg IgG; kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**RESEARCH USE**

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

**APPLICATIONS**

PRPK (G-10) is recommended for detection of PRPK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for PRPK siRNA (h): sc-76259, PRPK siRNA (m): sc-152499, PRPK shRNA Plasmid (h): sc-76259-SH, PRPK shRNA Plasmid (m): sc-152499-SH, PRPK shRNA (h) Lentiviral Particles: sc-76259-V and PRPK shRNA (m) Lentiviral Particles: sc-152499-V.

Molecular Weight of PRPK: 28 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

**STORAGE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.