

CGI-121 (N-14): sc-242431

BACKGROUND

CGI-121, also known as TP53RK-binding protein and PRPK-binding protein, is a 175 amino acid protein that is widely expressed. Localizing to the cytoplasm and nucleus, CGI-121 interacts with PRPK, a 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. The gene encoding CGI-121 maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. There are three isoforms of CGI-121 that are produced as a result of alternative splicing events.

REFERENCES

- Lai, C.H., et al. 2000. Identification of novel human genes evolutionarily conserved in *Caenorhabditis elegans* by comparative proteomics. *Genome Res.* 10: 703-713.
- Miyoshi, A., et al. 2003. Identification of CGI-121, a novel PRPK (p53-related protein kinase)-binding protein. *Biochem. Biophys. Res. Commun.* 303: 399-405.
- Facchin, S., et al. 2003. Functional homology between yeast piD261/Bud32 and human PRPK: both phosphorylate p53 and PRPK partially complements piD261/Bud32 deficiency. *FEBS Lett.* 549: 63-66.
- Abe, Y., et al. 2006. A Small Ras-like protein Ray/Rab1c modulates the p53-regulating activity of PRPK. *Biochem. Biophys. Res. Commun.* 344: 377-385.
- Wang, X.F., et al. 2006. Identification of differentially expressed genes induced by angiotensin II in rat cardiac fibroblasts. *Clin. Exp. Pharmacol. Physiol.* 33: 41-46.
- Oppermann, F.S., et al. 2009. Large-scale proteomics analysis of the human kinome. *Mol. Cell. Proteomics* 8: 1751-1764.

CHROMOSOMAL LOCATION

Genetic locus: TPRKB (human) mapping to 2p13.1; Tprkb (mouse) mapping to 6 C3.

SOURCE

CGI-121 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CGI-121 of human origin.

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.

PROTOCOLS

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

PRODUCT

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

Blocking peptide available for competition studies, sc-242431 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CGI-121 (N-14) is recommended for detection of CGI-121 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).

CGI-121 (N-14) is also recommended for detection of CGI-121 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CGI-121 siRNA (h): sc-94603, CGI-121 siRNA (m): sc-142305, CGI-121 shRNA Plasmid (h): sc-94603-SH, CGI-121 shRNA Plasmid (m): sc-142305-SH, CGI-121 shRNA (h) Lentiviral Particles: sc-94603-V and CGI-121 shRNA (m) Lentiviral Particles: sc-142305-V.

Molecular Weight of CGI-121: 20 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.