SANTA CRUZ BIOTECHNOLOGY, INC.

PIDD (B-5): sc-514981

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PIDD (for p53 induced protein with a death domain) encodes a protein of 915 amino acids in mice (910 amino acids in humans) and contains seven tandem leucine rich repeats (LRR) in the amino terminus and a death domain in the carboxy terminus. PIDD mRNA is induced by γ-irradiation in a p53-dependent manner and the basal level of PIDD mRNA is dependent on p53 status. Over-expression of PIDD inhibits cell growth in a p53-like manner by inducing apoptosis. Antisense inhibition of PIDD expression has been shown to attenuate p53-mediated apoptosis, suggesting that PIDD expression is required for apoptosis. PIDD localizes to the cytosol.

REFERENCES

1. Lin, Y., et al. 2000. PIDD, a new death-domain-containing protein, is induced by p53 and promotes apoptosis. Nat. Genet. 26: 122-127.
2. Telliez, J.B., et al. 2000. LRDD, a novel leucine rich repeat and death domain containing protein. Biochim. Biophys. Acta 1478: 280-288.
3. Benchimol, S., et al. 2001. p53-dependent pathways of apoptosis. Cell Death Differ. 8: 1049-1051.
4. Tinel, A., et al. 2004. The PIDDosome, a protein complex implicated in activation of caspase-2 in response to genotoxic stress. Science 304: 843-846.
5. Lai, M.D., et al. 2005. Phosphorylated and hypoacetylated mutant p53 enhances cisplatin-induced apoptosis through caspase-9 pathway in the absence of transcriptional activation or translation. Int. J. Mol. Med. 15: 725-734.
6. Nie, D.S., et al. 2005. Identification of a novel testis-specific gene mtLR1, which is expressed at specific stages of mouse spermatogenesis. Biochem. Biophys. Res. Commun. 328: 1010-1018.

CHROMOSOMAL LOCATION

Genetic locus: PIDD1 (human) mapping to 11p15.5; Pidd1 (mouse) mapping to 7 F5.

SOURCE

PIDD (B-5) is a mouse monoclonal antibody raised against amino acids 611-910 (deletion 704-720) mapping at the C-terminus of PIDD of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PIDD (B-5) is available conjugated to agarose (sc-514981 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514981 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514981 PE), fluorescein (sc-514981 FITC), Alexa Fluor® 488 (sc-514981 AF488), Alexa Fluor® 546 (sc-514981 AF546), Alexa Fluor® 594 (sc-514981 AF594) or Alexa Fluor® 647 (sc-514981 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514981 AF680) or Alexa Fluor® 790 (sc-514981 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PIDD (B-5) is recommended for detection of PIDD 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 PIDD siRNA (h): sc-44656, PIDD siRNA (m): sc-44657, PIDD siRNA (r): sc-72107, PIDD shRNA Plasmid (h): sc-44656-SH, PIDD shRNA Plasmid (m): sc-44657-SH, PIDD shRNA Plasmid (r): sc-72107-SH, PIDD shRNA (h) Lentiviral Particles: sc-44656-V, PIDD shRNA (m) Lentiviral Particles: sc-44657-V and PIDD shRNA (r) Lentiviral Particles: sc-72107-V.

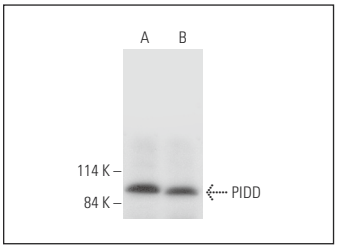
Molecular Weight of PIDD: 100 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, Hep G2 cell lysate: sc-2227 or NCI-H226 whole cell lysate: sc-364256.

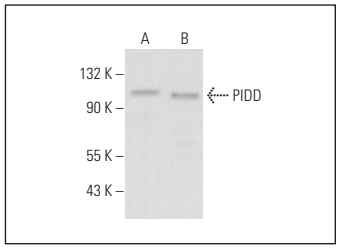
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PIDD (B-5): sc-514981. Western blot analysis of PIDD expression in HEK293 (**A**) and NCI-H226 (**B**) whole cell lysates.



PIDD (B-5): sc-514981. Western blot analysis of PIDD expression in Hep G2 (**A**) and Neuro-2A (**B**) whole cell lysates.

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.