SANTA CRUZ BIOTECHNOLOGY, INC.

p-PRK2 (Thr 816): sc-12891

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Protein kinase C-related kinase 2 (PRK2), a Serine/Threonine kinase, was originally isolated from rat liver as a cytosolic enzyme. PRK2 (also designated PAK2) contains a hydrophobic motif in the carboxy-terminus, which is designated the PDK1-interacting fragment (PIF). The PIF binds to the kinase domain of PDK1, resulting in the activation of PRK2 through the phosphorylation of Thr 816. Also, PRK2 plays a dual role in regulating PDK1. Upon binding of the PIF, PDK1 is prevented from phosphorylating p70 S6 kinase, while phosphorylation of PKB is enhanced. During apoptosis, PRK2 is cleaved within its regulatory domain, which suggests that it may by down-regulated by proteolysis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PKN2 (human) mapping to 1p22.2; Pkn2 (mouse) mapping to 3 H1.

SOURCE

p-PRK2 (Thr 816) is available as either goat (sc-12891) or rabbit (sc-12891-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing phosphorylated Thr 816 of PRK2 of human origin.

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-12891 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-PRK2 (Thr 816) is recommended for detection of Thr 816 phosphorylated PRK2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

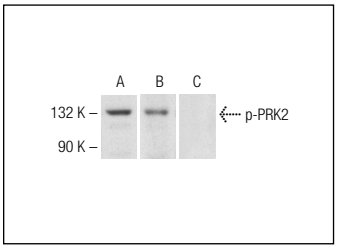
p-PRK2 (Thr 816) is also recommended for detection of correspondingly phosphorylated Thr on PRK2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PRK2 siRNA (h): sc-39219, PRK2 siRNA (m): sc-39220, PRK2 shRNA Plasmid (h): sc-39219-SH, PRK2 shRNA Plasmid (m): sc-39220-SH, PRK2 shRNA (h) Lentiviral Particles: sc-39219-V and PRK2 shRNA (m) Lentiviral Particles: sc-39220-V.

Molecular Weight of p-PRK2: 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

DATA



Western blot analysis of phosphorylated PRK2 expression in HeLa whole cell lysates. Blots were probed with PRK2 (C-18): sc-6979 (**A**) and p-PRK2 (Thr 816)-R: sc-12891-R preincubated with cognate unphosphorylated (**B**) and phosphorylated (**C**) peptide.

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.