

SCOP (H-60): sc-67069

BACKGROUND

SCOP (suprachiasmatic nucleus circadian oscillatory protein, PHLPP, PH domain and leucine rich repeat protein phosphatase, PLEKHE1) is a phosphatase that directly dephosphorylates Akt, promotes apoptosis and suppresses tumor growth. Endogenous SCOP in human embryonic kidney cell lysates produces a major protein and minor protein. SCOP negatively regulates K-Ras signaling in membrane rafts and contributes to the regulation of the Ras-MAPK signaling pathway. Recombinant SCOP can dephosphorylate the hydrophobic motif of Akt1 (Ser 473) *in vitro*, triggering apoptosis and suppressing tumor growth. SCOP levels appear lower in certain colon cancer and glioblastoma cell lines that show elevated Akt phosphorylation. Rat tissues that express SCOP include cerebrum, cerebellum and testis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PHLPP1 (human) mapping to 18q21.33; Phlpp1 (mouse) mapping to 1 E2.1.

SOURCE

SCOP (H-60) is a rabbit polyclonal antibody raised against amino acids 1334-1393 mapping within an internal region of SCOP 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.

APPLICATIONS

SCOP (H-60) is recommended for detection of SCOP 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).

SCOP (H-60) is also recommended for detection of SCOP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SCOP siRNA (h): sc-45859, SCOP siRNA (m): sc-45860, SCOP shRNA Plasmid (h): sc-45859-SH, SCOP shRNA Plasmid (m): sc-45860-SH, SCOP shRNA (h) Lentiviral Particles: sc-45859-V and SCOP shRNA (m) Lentiviral Particles: sc-45860-V.

Molecular Weight of SCOP long β isoform: 190 kDa.

Molecular Weight of SCOP short α isoform: 140 kDa.

Positive Controls: Y79 nuclear extract: sc-2126.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **SCOP (H-3): sc-390129**, our highly recommended monoclonal alternative to SCOP (H-60).