## SANTA CRUZ BIOTECHNOLOGY, INC.

# RIP5 (N-16): sc-162109



### BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. RIP5 (receptor interacting protein kinase 5), also known as RIPK5, DustyPK or SGK496 (sugen kinase 496), is a 929 amino acid protein that localizes to the cytoplasm, contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Expressed at low levels in placenta, heart, brain, kidney, pancreas, testis and skeletal muscle, RIP5 catalyzes the ATP-dependent phosphorylation of target proteins and is thought to induce both caspase-dependent and -independent cell death. Four isoforms of RIP5 exist due to alternative splicing events.

## CHROMOSOMAL LOCATION

Genetic locus: DSTYK (human) mapping to 1q32.1; Dstyk (mouse) mapping to 1 E4.

#### SOURCE

RIP5 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RIP5 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162109 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RIP5 (N-16) is recommended for detection of RIP5 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with RIP or RIP3.

RIP5 (N-16) is also recommended for detection of RIP5 in additional species, including canine and porcine.

Suitable for use as control antibody for RIP5 siRNA (h): sc-88815, RIP5 siRNA (m): sc-152975, RIP5 shRNA Plasmid (h): sc-88815-SH, RIP5 shRNA Plasmid (m): sc-152975-SH, RIP5 shRNA (h) Lentiviral Particles: sc-88815-V and RIP5 shRNA (m) Lentiviral Particles: sc-152975-V.

Molecular Weight (predicted) of RIP5: 105 kDa.

Molecular Weight (observed) of RIP5: 119 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Ramos cell lysate: sc-2216 or mouse PBL whole cell lysate.

#### **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 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<sup>™</sup> Mounting Medium: sc-24941. 4) Immuno-histochemistry: use ImmunoCruz<sup>™</sup>: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA





RIP5 (N-16): sc-162109. Western blot analysis of RIP5 expression in mouse PBL whole cell lysate.

RIP5 (N-16): sc-162109. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic and intercalated disc staining of mycoçtes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of mycoçtes (B).

## SELECT PRODUCT CITATIONS

 Sanna-Cherchi, S., et al. 2013. Mutations in DSTYK and dominant urinary tract malformations. N. Engl. J. Med. 369: 621-629.

#### **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 Satisfation Guaranteed

Try **RIP5 (E-6): sc-374487**, our highly recommended monoclonal alternative to RIP5 (N-16).