

# RIP5 (Q-16): sc-162110

## 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.

## REFERENCES

- Bairoch, A. and Claverie, J.M. 1988. Sequence patterns in protein kinases. *Nature* 331: 22.
- Hanks, S.K., et al. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. *Science* 241: 42-52.
- Hunter, T. 1991. Protein kinase classification. *Meth. Enzymol.* 200: 3-37.
- Hanks, S.K. and Quinn, A.M. 1991. Protein kinase catalytic domain sequence database: identification of conserved features of primary structure and classification of family members. *Meth. Enzymol.* 200: 38-62.
- Zha, J., et al. 2004. RIP5 is a RIP-homologous inducer of cell death. *Biochem. Biophys. Res. Commun.* 319: 298-303.

## CHROMOSOMAL LOCATION

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

## SOURCE

RIP5 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RIP5 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-162110 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

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

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.

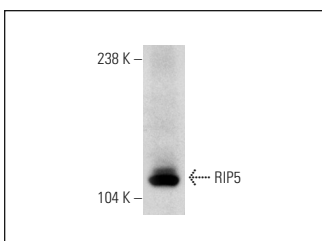
Molecular Weight (observed) of RIP5: 119 kDa.

Positive Controls: Daudi cell lysate: sc-2415 or Ramos cell lysate: sc-2216.

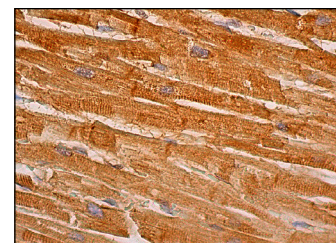
## RECOMMENDED SECONDARY REAGENTS

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) 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



RIP5 (Q-16): sc-162110. Western blot analysis of RIP5 expression in Daudi whole cell lysate.



RIP5 (Q-16): sc-162110. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic and intercalated disc staining of myocytes.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.