SANTA CRUZ BIOTECHNOLOGY, INC.

RIP5 (E-6): sc-374487

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (E-6) is a mouse monoclonal antibody raised against amino acids 630-929 mapping at the C-terminus of RIP5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RIP5 (E-6) is available conjugated to agarose (sc-374487 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374487 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374487 PE), fluorescein (sc-374487 FITC), Alexa Fluor® 488 (sc-374487 AF488), Alexa Fluor® 546 (sc-374487 AF546), Alexa Fluor® 594 (sc-374487 AF594) or Alexa Fluor® 647 (sc-374487 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374487 AF680) or Alexa Fluor® 790 (sc-374487 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RIP5 (E-6) is recommended for detection of RIP5 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), 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).

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.

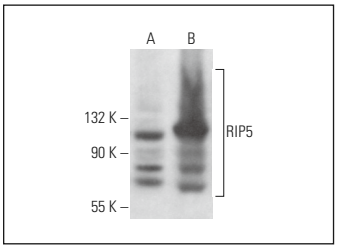
Molecular Weight (observed) of RIP5: 119 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Daudi cell lysate: sc-2415 or NIH/3T3 whole cell lysate: sc-2210.

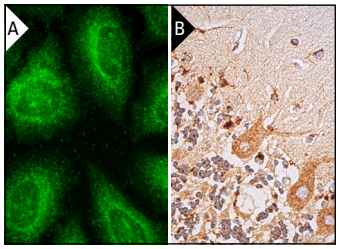
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RIP5 (E-6): sc-374487. Western blot analysis of RIP5 expression in K-562 (**A**) and NIH/3T3 (**B**) whole cell lysates.



RIP5 (E-6): sc-374487. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells, cells in granular layer and cells in molecular layer. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (**B**).

SELECT PRODUCT CITATIONS

1. Lee, J.Y.W., et al. 2017. Large intragenic deletion in DSTYK underlies autosomal-recessive complicated spastic paraparesis, SPG23. Am. J. Hum. Genet. 100: 364-370.
2. Sun, X., et al. 2020. Dstyk mutation leads to congenital scoliosis-like vertebral malformations in zebrafish via dysregulated mTORC1/TFEB pathway. Nat. Commun. 11: 479.

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 for detailed protocols and support products.