

Rad GTPase (K-16): sc-49716

BACKGROUND

The Ras-encoded family of proteins bind GDP and GTP with high affinity. They possess a low level of intrinsic GTPase activity that increases more than 100-fold when interacting with cytosolic GTPase activating protein (GAP). Ras family members include H-Ras, K-Ras, N-Ras, M-Ras, R-Ras, E-Ras, Rheb, TC 21, RASL11B and Rad (Ras associated with diabetes) GTPase. Rad GTPase is a GTP-binding protein that is similar to Ras but has unique features. Unlike other small GTPases, Rad GTPase lacks typical prenylation motifs at its C terminus. The Rad GTPase enzyme binds calmodulin, inhibits vascular lesion formation, has low intrinsic GTPase activity and cannot be stimulated by any known GAP molecules. Rad GTPase is expressed in skeletal muscle, cardiac muscle and lung tissues and is overexpressed in the skeletal muscle tissue of individuals with type II diabetes. It is also expressed to a lesser extent in placenta, adipose tissue and kidney.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RRAD (human) mapping to 16q22.1; Rrad (mouse) mapping to 8 D3.

SOURCE

Rad GTPase (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rad GTPase 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-49716 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rad GTPase (K-16) is recommended for detection of Rad GTPase (RAS associated with diabetes) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Rad GTPase (K-16) is also recommended for detection of Rad GTPase (RAS associated with diabetes) in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Rad GTPase siRNA (h): sc-61433, Rad GTPase siRNA (m): sc-61434, Rad GTPase shRNA Plasmid (h): sc-61433-SH, Rad GTPase shRNA Plasmid (m): sc-61434-SH, Rad GTPase shRNA (h) Lentiviral Particles: sc-61433-V and Rad GTPase shRNA (m) Lentiviral Particles: sc-61434-V.

Molecular Weight of Rad GTPase: 35 kDa.

Positive Controls: mouse skeletal muscle extract: sc-364250, A-673 cell lysate: sc-2414 or SJRH30 cell lysate: sc-2287.

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) 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.

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 **Rad GTPase (B-10): sc-373988**, our highly recommended monoclonal alternative to Rad GTPase (K-16).