

Rab 32 (M-43): sc-292962

BACKGROUND

Small GTP-binding proteins of the RAB family play essential roles in vesicle and granule targeting. Rab 32 is a 225 amino acid protein that belongs to the small GTPase superfamily and the Rab family. Rab 32 has an unusual GTP-binding sequence, DIAGQE, in place of the more common DTAGQE. Rab 32 acts as an A-kinase anchoring protein by binding to the type II regulatory sub-unit of protein kinase A and anchoring it to mitochondria. Also involved in synchronization of mitochondrial fission, Rab 32 is widely expressed with high levels in heart, liver, kidney, bone marrow, testis, colon and fetal lung. Rab 32 has been found to be frequently hypermethylated in microsatellite instability-high (MSI-H) colon cancers. Although Rab 32 methylation is rare in endometrial cancers, it is strongly associated with hMLH1 hypermethylation and MSI in gastric adenocarcinomas. The Rab 32 gene is conserved in chimpanzee, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *C. elegans*, and maps to human chromosome 6q24.3.

REFERENCES

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2. Alto, N.M., Soderling, J. and Scott, J.D. 2002. Rab32 is an A-kinase anchoring protein and participates in mitochondrial dynamics. *J. Cell Biol.* 158: 659-668.
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CHROMOSOMAL LOCATION

Genetic locus: Rab32 (mouse) mapping to 10 A1.

SOURCE

Rab 32 (M-43) is a rabbit polyclonal antibody raised against amino acids 181-223 mapping at the C-terminus of Rab 32 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Rab 32 (M-43) is recommended for detection of Rab 32 of mouse and rat 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).

Suitable for use as control antibody for Rab 32 siRNA (m): sc-152636, Rab 32 shRNA Plasmid (m): sc-152636-SH and Rab 32 shRNA (m) Lentiviral Particles: sc-152636-V.

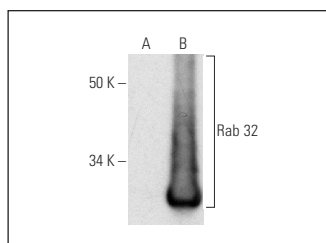
Molecular Weight of Rab 32: 25 kDa.

Positive Controls: Rab 32 (m2): 293T Lysate: sc-122902 or mouse brain extract: sc-2253.

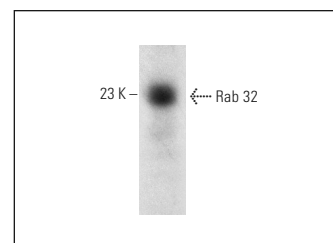
RECOMMENDED SECONDARY REAGENTS

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.

DATA



Rab 32 (M-43): sc-292962. Western blot analysis of Rab 32 expression in non-transfected: sc-117752 (A) and mouse Rab 32 transfected: sc-122902 (B) 293T whole cell lysates.



Rab 32 (M-43): sc-292962. Western blot analysis of Rab 32 expression in mouse brain tissue extract.

STORAGE

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

MONOS
Satisfaction
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Try **Rab 32 (B-4): sc-390178**, our highly recommended monoclonal alternative to Rab 32 (M-43).