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Rab 27a (m): 293T Lysate: sc-122891

BACKGROUND

The Rab family of low molecular weight GTPases are critical regulators of vesicular transport. Rab proteins cycle between an active GTP-bound state, which recruits specific effector proteins, and an inactive GDP-bound state. Two members of this family, Rab27a and Rab27b, have overlapping functions, but differ in tissue specificity. Rab27a is widely expressed with significant expression in pancreatic islets and pituitary tissue, and low expression in brain. Rab27b is also expressed in pituitary tissue, but is more significantly expressed in brain and spleen. Rab27a regulates diverse processes involving lysosome-related organelles, including melanosome motility in melanocytes and lytic granule release in cytotoxic T lymphocytes. Mutations in the Rab27a gene result in Griscelli syndrome (GS) or the corresponding mouse model ashen, a rare autosomal recessive disorder characterized by hypopigmentation, prolonged bleeding times, and platelet storage pool deficiency. In GS, Rab27a is not available to mediate the recruitment of melanosomes via the actin motor, myosin Va. The human Rab27b gene maps to chromosome 18q21.1, and encodes a protein that is involved in pituitary hormone secretion. Rab27b may be functionally redundant to Rab27a, as it can rescue Rab27a mutants.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Rab27a (mouse) mapping to 9 D.

PRODUCT

Rab 27a (m): 293T Lysate represents a lysate of mouse Rab 27a transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Rab 27a (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Rab 27a antibodies. Recommended use: 10-20 µl per lane.

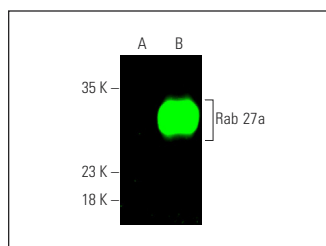
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Rab 27a (E-8): sc-74586 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Rab 27a expression in Rab 27a transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

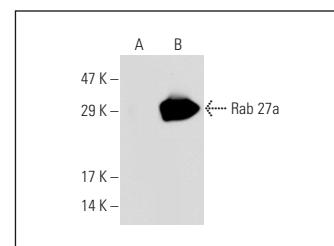
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Rab 27a (E-8): sc-74586. Near-infrared western blot analysis of Rab 27a expression in non-transfected: sc-117752 (A) and mouse Rab 27a transfected: sc-122891 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



Rab 27a (E-8): sc-74586. Western blot analysis of Rab 27a expression in non-transfected: sc-117752 (A) and mouse Rab 27a transfected: sc-122891 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.