BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, Rap, RaI/Rec and Rho/Rab subfamilies exhibit 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the Sec4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles. At least eight members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: RAB8A (human) mapping to 19p13.12; Rab8a (mouse) mapping to 8 B3.3.

SOURCE

Rab 8A (63-BJ) is a mouse monoclonal antibody raised against recombinant Rab 8A of human origin.

PRODUCT

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rab 8A (63-BJ) is recommended for detection of Rab 8A 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).

Suitable for use as control antibody for Rab 8A siRNA (h): sc-41828, Rab 8A siRNA (m): sc-41829, Rab 8A shRNA Plasmid (h): sc-41828-SH, Rab 8A shRNA Plasmid (m): sc-41829-SH, Rab 8A shRNA (h) Lentiviral Particles: sc-41828-V and Rab 8A shRNA (m) Lentiviral Particles: sc-41829-V.

Molecular Weight of Rab 8A: 27 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, rat brain extract: sc-2392 or MDA-MB-231 cell lysate: sc-2232.

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, 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 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.

DATA

Rab 8A (63-BJ) sc-81909. Western blot analysis of Rab 8A expression in HeLa nuclear extract (A), MDA-MB-231 (B) and I-11.15 (C) whole cell lysates and mouse brain (D), rat brain (E) and rat lung (F) tissue extracts.

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.