BACKGROUND
The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, RaI/Rec and Rho/Rab subfamilies all of which are thought to play an important role in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum (ER) to various stacks of the Golgi complex and to secretory vesicles involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 31, also known as RAB22B, is a 194 amino lipid-anchored protein that localizes to the cytoplasmic side of the cell membrane and belongs to the Ras-related GTPase superfamily. Expressed at high levels in lung, brain and heart, Rab 31 may function in a similar manner to other Rab proteins, namely playing a role in protein transport.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: RAB31 (human) mapping to 18p11.22.

SOURCE
Rab 31 (4D12) is a mouse monoclonal antibody raised against amino acids 96-195 representing partial length Rab 31 of human origin.

PRODUCT
Each vial contains 100 µg IgG2a in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

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

BACKGROUND
Rab 31 (4D12) is recommended for detection of Rab 31 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Notes

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA

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.