BACKGROUND

RAPGEF6 (rap guanine nucleotide exchange factor 6), also known as PDZGEF2 (PDZ domain-containing guanine nucleotide exchange factor 2) or RA-GEF-2, is a guanine nucleotide exchange factor (GEF) that is expressed in a variety of tissues. Localizing to the cytoplasm and translocated to the plasma membrane upon ligand binding, RAPGEF6 contains an N-terminal Ras-GEF domain, a cyclic nucleotide monophosphate-binding domain, a PDZ (PSD-95/DlgA/ZO-1) domain, a Ras-associating (RA) domain and a Ras exchanger motif. RAPGEF6 is closely related to RAPGEF2 and both proteins exhibit GEF activity specific towards Rap1 and Rap2. In addition, RAPGEF6 is capable of binding to M-Ras via its RA domain. Due to alternative splicing events, two additional isoforms exist for RAPGEF6, namely PDZ-GEF2A and PDZ-GEF2B.

APPLICATIONS

RAPGEF6 (F-8) is recommended for detection of RAPGEF6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 RAPGEF6 siRNA (h): sc-76349, RAPGEF6 siRNA (m): sc-76350, RAPGEF6 shRNA Plasmid (h): sc-76349-SH, RAPGEF6 shRNA Plasmid (m): sc-76350-SH, RAPGEF6 shRNA (h) Lentiviral Particles: sc-76349-V and RAPGEF6 shRNA (m) Lentiviral Particles: sc-76350-V.

Molecular Weight of RAPGEF6: 179 kDa.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: RAPGEF6 (human) mapping to 5q31.1; Rapgef6 (mouse) mapping to 11 B1.3.

SOURCE

RAPGEF6 (F-8) is a mouse monoclonal antibody raised against amino acids 1-167 mapping at the N-terminus of RAPGEF6 of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DATA

RAPGEF6 (F-8): sc-398642. Western blot analysis of RAPGEF6 expression in HEL 92.1.7 (A), IB4 (B) and SP2/0 (C) whole cell lysates and rat thymus tissue extract (D).

 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 for detailed protocols and support products.