RAPGEF6 (F-8): sc-398642

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 Rap 1 and Rap 2. 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.

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 IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RAPGEF6 (F-8) is available conjugated to agargose (sc-398642 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-398642 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398642 PE), fluorescent (sc-398642 FITC), Alexa Fluor® 488 (sc-398642 AF488), Alexa Fluor® 546 (sc-398642 AF546), Alexa Fluor® 594 (sc-398642 AF594) or Alexa Fluor® 647 (sc-398642 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398642 AF680) or Alexa Fluor® 790 (sc-398642 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

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.
Positive Controls: Daudi cell lysate: sc-2415, IB4 whole cell lysate: sc-364780 or HEL 92.1.7 cell lysate: sc-2270.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG PE: sc-516141 (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.


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Molecular Weight Standards: sc-2035, UltraCruz® blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2035 (0.5 ml agarose/2.0 ml). 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 Standards: sc-2035, UltraCruz® blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2035 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG HRP: 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2035 (0.5 ml agarose/2.0 ml).

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DATA

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

SELECT PRODUCT CITATIONS


STORAGE

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

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