SANTA CRUZ BIOTECHNOLOGY, INC.

# RAPGEF6 (E-17): sc-69596

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

RAPGEF6 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RAPGEF6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69596 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

RAPGEF6 (E-17) is recommended for detection of RAPGEF6 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).

RAPGEF6 (E-17) is also recommended for detection of RAPGEF6 in additional species, including equine, canine, bovine and porcine.

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.

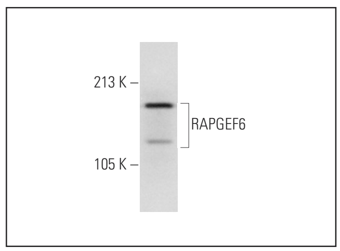
Molecular Weight of RAPGEF6: 179 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200.

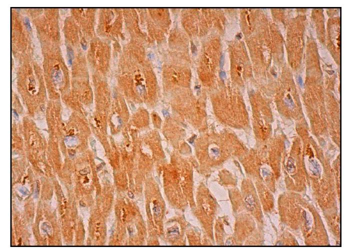
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA




RAPGEF6 (E-17): sc-69596. Western blot analysis of RAPGEF6 expression in HeLa whole cell lysate.



RAPGEF6 (E-17): sc-69596. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

## 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.

MONOS Satisfation Guaranteed

Try **RAPGEF6 (F-8): sc-398642** or **RAPGEF6 (BA-17): sc-81919**, our highly recommended monoclonal alternatives to RAPGEF6 (E-17).