**BACKGROUND**

Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors. Each of a very broad range of receptors specifically detects an extracellular stimulus (a photon, pheromone, odorant, hormone or neurotransmitter) while the effectors (i.e. adenyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein α, β and γ polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their α subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four distinct classes of Gα subunits have been identified; these include Gαs, Gαi, Gαq and Gα12/13. The Gαi class comprises all the known α subunits that are susceptible to pertussis toxin modifications, including Gαi1, Gαi2, Gαi3, Gα12, Gα13 and Gα16. Of these, the three Gαi subtypes function to open atrial potassium channels.

**CHROMOSOMAL LOCATION**

Genetic locus: GNAI1 (human) mapping to 7q21.1; Gna1i (mouse) mapping to 5A3.

**SOURCE**

Gαi1-1 (R4) is a mouse monoclonal antibody raised against Gαi1-1 of rat origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Gαi1-1 (R4) is available conjugated to agarose (sc-13533 AC), 500 µg/0.25 ml agarose in 1 ml, for IF; to HRP (sc-13533 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13533 PE), fluorescein (sc-13533 FITC), Alexa Fluor® 488 (sc-13533 AF488), Alexa Fluor® 546 (sc-13533 AF546), Alexa Fluor® 594 (sc-13533 AF594) or Alexa Fluor® 647 (sc-13533 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13533 AF680) or Alexa Fluor® 790 (sc-13533 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

**APPLICATIONS**

Gαi1-1 (R4) is recommended for detection of Gαi1-1 of mouse, rat, human and bovine 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Gαi1-1 siRNA (h): sc-105382, Gαi1-1 siRNA (m): sc-41751, Gαi1-1 shRNA Plasmid (h): sc-105382-SH, Gαi1-1 shRNA Plasmid (m): sc-41751-SH, Gαi1-1 shRNA (h) Lentiviral Particles: sc-105382-V and Gαi1-1 shRNA (m) Lentiviral Particles: sc-41751-V.

Molecular Weight of Gαi1-1: 41 kDa.


**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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