KIR4.2 (G-5): sc-376322

BACKGROUND
The Kir (inwardly rectifying potassium channel) family of potassium channels possess a greater tendency to allow potassium to flow into the cell rather than out of it. Kir4.1, also known as Kir1.2, is highly expressed in brain including glial cells, astrocytes and cortical neurons. Kir4.1 is also expressed in myelin-synthesizing oligodendrocytes and is crucial to myelination in the developing nervous system. The gene encoding human Kir4.1 maps to chromosome 1. Kir4.2, also known as Kir1.3, is expressed in kidney, lung, heart, thymus and thyroid during development. The gene encoding human Kir4.2 maps to chromosome 21 in the Down syndrome chromosome region 1, and Kir4.2 may play a role in the pathogenesis of Down’s syndrome. Kir 5.1 forms functional channels only by coexpression with either Kir4.1 or Kir4.2 in the kidney and pancreas. The gene encoding human Kir5.1 maps to chromosome 17.

REFERENCES


CHROMOSOMAL LOCATION
Genetic locus: KCNJ15 (human) mapping to 21q22.13.

SOURCE
KIR4.2 (G-5) is a mouse monoclonal antibody raised against amino acids 304-375 mapping at the C-terminus of KIR4.2 of human origin.

PRODUCT
Each vial contains 200 µg IgG2k kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KIR4.2 (G-5) is available conjugated to agarose (sc-376322 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376322 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376322 PE), fluorescein (sc-376322 FITC), Alexa Fluor® 488 (sc-376322 AF488), Alexa Fluor® 546 (sc-376322 AF546), Alexa Fluor® 594 (sc-376322 AF594) or Alexa Fluor® 647 (sc-376322 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376322 AF680) or Alexa Fluor® 790 (sc-376322 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

KIR4.2 (G-5) is recommended for detection of KIR4.2 of 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 KIR4.2 siRNA (h): sc-91419, KIR4.2 shRNA Plasmid (h): sc-91419-SH and KIR4.2 shRNA (h) Lentiviral Particles: sc-91419-V.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG2k BP-HRP: sc-516102 or m-IgG2k BP-HRP (Cruz Marker): 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-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG2k BP-FITC: sc-516140 or m-IgG2k BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

KIR4.2 (G-5): sc-376322. Western blot analysis of KIR4.2 expression in Hep G2 (A) and HeLa (B) whole cell lysates.

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.