

KIR4.1 (G-19): sc-23637

BACKGROUND

The KIR (for 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. KIR5.1 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

- Gosset, P., et al. 1997. A new inward rectifier potassium channel gene (KCNJ15) localized on chromosome 21 in the Down syndrome chromosome region 1. *Genomics* 44: 237-241.
- Isomoto, S., et al. 1997. Inwardly rectifying potassium channels: their molecular heterogeneity and function. *J. Physiol.* 47: 11-39.

CHROMOSOMAL LOCATION

Genetic locus: KCNJ10 (human) mapping to 1q23.2; Kcnj10 (mouse) mapping to 1 H3.

SOURCE

KIR4.1 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KIR4.1 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-23637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KIR4.1 (G-19) is recommended for detection of KIR4.1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

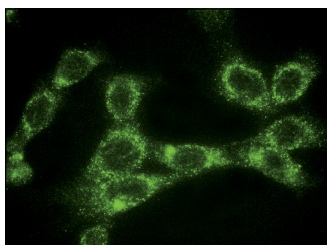
KIR4.1 (G-19) is also recommended for detection of KIR4.1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for KIR4.1 siRNA (h): sc-42624, KIR4.1 siRNA (m): sc-42625, KIR4.1 siRNA (r): sc-156035, KIR4.1 shRNA Plasmid (h): sc-42624-SH, KIR4.1 shRNA Plasmid (m): sc-42625-SH, KIR4.1 shRNA Plasmid (r): sc-156035-SH, KIR4.1 shRNA (h) Lentiviral Particles: sc-42624-V, KIR4.1 shRNA (m) Lentiviral Particles: sc-42625-V and KIR4.1 shRNA (r) Lentiviral Particles: sc-156035-V.

RESEARCH USE

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

DATA



KIR4.1 (G-19): sc-23637. Immunofluorescence staining of methanol-fixed Sol8 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Ulbricht, E., et al. 2008. Proliferative gliosis causes mislocation and inactivation of inwardly rectifying K⁺ (KIR) channels in rabbit retinal glial cells. *Exp. Eye Res.* 86: 305-313.
- Liu, Y.P., et al. 2008. Cellular characterization of Connexin26 and Connexin30 expression in the cochlear lateral wall. *Cell Tissue Res.* 333: 395-403.
- Shi, X. 2010. Resident macrophages in the cochlear blood-labyrinth barrier and their renewal via migration of bone-marrow-derived cells. *Cell Tissue Res.* 342: 21-30.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **KIR4.1 (1C11): sc-293252**, our highly recommended monoclonal alternative to KIR4.1 (G-19).