

# KIR6.1 (R-14): sc-11224

## BACKGROUND

ATP-sensitive K<sup>+</sup> channels play important roles in many cellular functions by coupling cell metabolism to electrical activity. KIR6.1 and KIR6.2 are members of the KIR (for inwardly rectifying potassium channel) family of potassium channels. Inward rectifying K<sup>+</sup> channels possess a greater tendency to allow potassium to flow into the cell rather than out of it. These channels comprise two subunits: a KIR6.0 subfamily component and a SUR component, which is a member of the ATP-binding cassette protein superfamily. Mutations in the gene coding for these channels are a cause of an autosomal recessive disorder characterized by unregulated insulin secretion. The amino-terminal and carboxyl-terminal domains of KIR channel subunits are both intracellular, and the two intracellular domains of KIR6.2 physically interact with each other.

## CHROMOSOMAL LOCATION

Genetic locus: KCNJ8 (human) mapping to 12p12.1; Kcnj8 (mouse) mapping to 6 G2.

## SOURCE

KIR6.1 (R-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of KIR6.1 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-11224 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KIR6.1 (R-14) is recommended for detection of KIR6.1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KIR6.1 (R-14) is also recommended for detection of KIR6.1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for KIR6.1 siRNA (h): sc-35752, KIR6.1 siRNA (m): sc-35753, KIR6.1 shRNA Plasmid (h): sc-35752-SH, KIR6.1 shRNA Plasmid (m): sc-35753-SH, KIR6.1 shRNA (h) Lentiviral Particles: sc-35752-V and KIR6.1 shRNA (m) Lentiviral Particles: sc-35753-V.

Molecular Weight of KIR6.1: 51 kDa.

Positive Controls: mouse heart extract: sc-2254 or rat skeletal muscle extract: sc-364810.

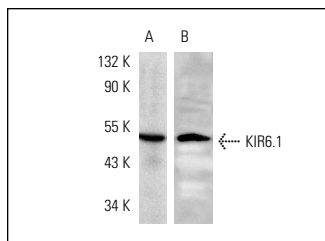
## STORAGE

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.

## DATA



KIR6.1 (R-14): sc-11224. Western blot analysis of KIR6.1 expression in mouse heart (A) and rat skeletal muscle (B) extracts.

## SELECT PRODUCT CITATIONS

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- Pouokam, E., et al. 2013. ATP-sensitive K<sup>+</sup> channels in rat colonic epithelium. *Pflugers Arch.* 465: 865-877.
- Dong, Y.F., et al. 2013. Kir6.1 knockdown aggravates cerebral ischemia/reperfusion-induced neural injury in mice. *CNS Neurosci. Ther.* 19: 617-624.
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