

# KIR6.2 (N-18): sc-11226

## 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: KCNJ11 (human) mapping to 11p15.1; Kcnj11 (mouse) mapping to 7 B4.

## SOURCE

KIR6.2 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of KIR6.2 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-11226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

KIR6.2 (N-18) is recommended for detection of KIR6.2 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).

KIR6.2 (N-18) is also recommended for detection of KIR6.2 in additional species, including bovine.

Suitable for use as control antibody for KIR6.2 siRNA (h): sc-42628, KIR6.2 siRNA (m): sc-42629, KIR6.2 siRNA (r): sc-270034, KIR6.2 shRNA Plasmid (h): sc-42628-SH, KIR6.2 shRNA Plasmid (m): sc-42629-SH, KIR6.2 shRNA Plasmid (r): sc-270034-SH, KIR6.2 shRNA (h) Lentiviral Particles: sc-42628-V, KIR6.2 shRNA (m) Lentiviral Particles: sc-42629-V and KIR6.2 shRNA (r) Lentiviral Particles: sc-270034-V.

Molecular Weight of KIR6.2: 40-56 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, mouse brain extract: sc-2253 or MIA PaCa-2 cell lysate: sc-2285.

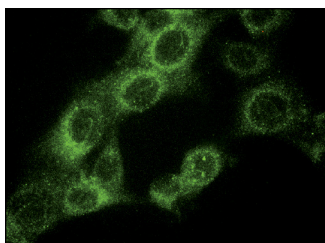
## STORAGE

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



KIR6.2 (N-18): sc-11226. Immunofluorescence staining of methanol-fixed Sol8 cells showing membrane localization.

## SELECT PRODUCT CITATIONS

- Lacza, Z., et al. 2003. Heart mitochondria contain functional ATP-dependent K<sup>+</sup> channels. *J. Mol. Cell. Cardiol.* 35: 1339-1347.
- Ploug, K.B., et al. 2006. Pharmacological and molecular comparison of K<sub>ATP</sub> channels in rat basilar and middle cerebral arteries. *Eur. J. Pharmacol.* 553: 254-262.
- Soundarapandian, M.M., et al. 2007. Expression of functional Kir6.1 channels regulates glutamate release at CA3 synapses in generation of epileptic form of seizures. *J. Neurochem.* 103: 1982-1988.
- Ploug, K.B., et al. 2008. K<sub>ATP</sub> channel expression and pharmacological *in vivo* and *in vitro* studies of the K<sub>ATP</sub> channel blocker PNU-37883A in rat middle meningeal arteries. *Br. J. Pharmacol.* 154: 72-81.
- Puddu, A., et al. 2008. Caveolin-1 is essential for glimepiride-induced Insulin secretion in the pancreatic βTC-6 cell line. *Biochem. Biophys. Res. Commun.* 375: 235-7.
- Maack, C., et al. 2009. Endogenous activation of mitochondrial KATP channels protects human failing myocardium from hydroxyl radical-induced stunning. *Circ. Res.* 105: 811-817.
- Tsang, S.W., et al. 2010. Increased basal Insulin secretion in Pdzd2-deficient mice. *Mol. Cell. Endocrinol.* 315: 263-270.
- Geng, X., et al. 2011. α-synuclein binds the K(ATP) channel at Insulin-secretory granules and inhibits Insulin secretion. *Am. J. Physiol. Endocrinol. Metab.* 300: E276-E286.


 MONOS  
Satisfaction  
Guaranteed

Try **KIR6.2 (B-9): sc-390104**, our highly recommended monoclonal alternative to KIR6.2 (N-18).