

KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) Mouse Monoclonal Antibody Catalog # ALS14986

### Specification

## KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IF, WB, IHC <u>P48050</u> Human, Mouse, Rat Mouse Monoclonal 50kDa KDa

#### KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Additional Information

Gene ID 3761

**Other Names** Inward rectifier potassium channel 4, HIRK2, HRK1, Hippocampal inward rectifier, HIR, Inward rectifier K(+) channel Kir2.3, IRK-3, Potassium channel, inwardly rectifying subfamily J member 4, KCNJ4, IRK3

**Target/Specificity** Detects ~45 kD protein. No cross reactivity against Kir2.1, or Kir2.2.

**Reconstitution & Storage** Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

**Precautions** KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) is for research use only and not for use in diagnostic or therapeutic procedures.

### KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Protein Information

Name KCNJ4

Synonyms IRK3

Function

Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. Can be blocked by extracellular barium and cesium.

#### **Cellular Location**

Cell membrane {ECO:0000250|UniProtKB:P52189}; Multi-pass membrane protein. Postsynaptic cell membrane {ECO:0000250|UniProtKB:P52189}; Multi-pass membrane protein. Cytoplasmic



vesicle membrane {ECO:0000250|UniProtKB:P52189}. Note=TAX1BP3 binding promotes dissociation of KCNJ4 from LIN7 famaly members and KCNJ4 internalization. {ECO:0000250|UniProtKB:P52189}

**Tissue Location** Heart, skeletal muscle, and several different brain regions including the hippocampus

## KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>

# KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Images



Kir2.3 (S25-35), Human hippocampus.

201.5→ 156.75→ 108→	
79.68→	
48.33→	_
37.81→	
23.27→	
18.19→	
. 14.7→*	

Kir2 3 (S25-35), Human cell line mix.





Anti-KCNJ4 / Kir2.3 antibody IHC of human brain, cortex neurons. KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - Background

Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. Can be blocked by extracellular barium and cesium (By similarity).

# KCNJ4 / Kir2.3 Antibody (aa390-445, clone S25-35) - References

Perier F.,et al.Proc. Natl. Acad. Sci. U.S.A. 91:6240-6244(1994). Tang W.,et al.FEBS Lett. 348:239-243(1994). Makhina E.N.,et al.J. Biol. Chem. 269:20468-20474(1994). Collins J.E.,et al.Genome Biol. 5:R84.1-R84.11(2004). Dunham I.,et al.Nature 402:489-495(1999).