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# Anti-Kir2.1 Antibody

Catalog # AP60474

## Product Information

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| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | P63252 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 48288 |

## Additional Information

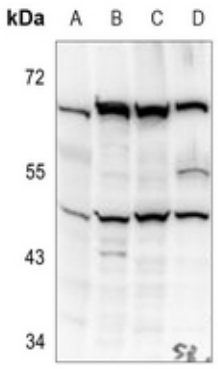
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| **Gene ID** | 3759 |
| **Other Names** | IRK1; Inward rectifier potassium channel 2; Cardiac inward rectifier potassium channel; Inward rectifier K(+) channel Kir2.1; IRK-1; hIRK1; Potassium channel, inwardly rectifying subfamily J member 2 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Kir2.1. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

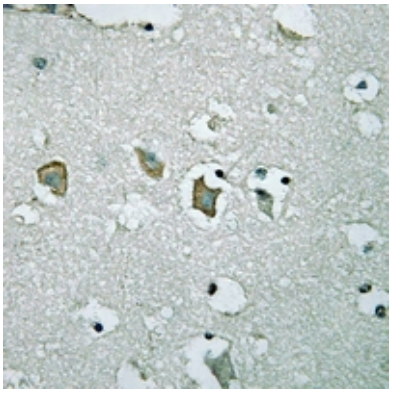
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|---|---|
| **Name** | KCNJ2 |
| **Synonyms** | IRK1 |
| **Function** | Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it (PubMed:36149965, PubMed:7590287, PubMed:9490857). 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 (PubMed:7590287, PubMed:7696590). The inward rectification is mainly due to the blockage of outward current by internal magnesium (PubMed:9490857). Can be blocked by extracellular barium or cesium (PubMed:7590287, PubMed:7696590). Probably participates in establishing action potential waveform and excitability of neuronal and muscle tissues (PubMed:7590287, PubMed:7696590, PubMed:7840300). |

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| **Cellular Location** | Cell membrane; Multi-pass membrane protein Cell membrane, sarcolemma, T-tubule {ECO:0000250\|UniProtKB:Q64273} |
| **Tissue Location** | Heart, brain, placenta, lung, skeletal muscle, and kidney. Diffusely distributed throughout the brain |

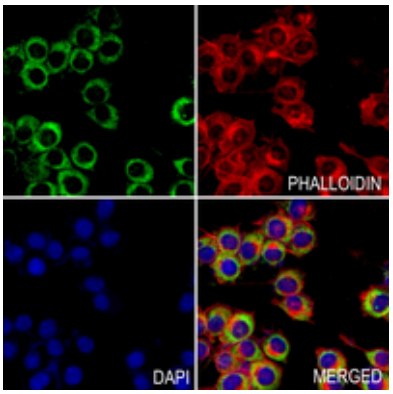
## Images




Western blot analysis of Kir2.1 expression in BV2 (A), PC12 (B), A549 (C), U87MG (D) whole cell lysates. (Predicted band size: 48 kD; Observed band size: 48 kD)



Immunohistochemical analysis of Kir2.1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.




Immunofluorescent analysis of Kir2.1 staining in BV2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.