

GIRK2 (D6C2T) Rabbit mAb

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Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 46	Source/Isotype: Rabbit IgG	UniProt ID: #P48051	Entrez-Gene Id: 3763
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

GIRK2 (D6C2T) Rabbit mAb recognizes endogenous levels of total GIRK2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg46 of human GIRK2 protein.

Background

GIRK2 is a member of G protein-coupled inwardly rectifying potassium channel family proteins (GIRKs). GIRK family proteins allow potassium to flow into the cell and therefore control cellular excitability in the central nervous system, heart, and pancreas (1-4). Activation of most GIRK channels requires heterologous subunit assembly and the presence of ATP (5-7). GIRK2 is abundantly expressed in the brain, where it is involved in pain perception. It is also required for peripheral opioid-mediated analgesia (8). Additionally GIRK2 localizes to pancreatic β cells and regulates insulin secretion (9,10). Mutations in the *KCNJ6* gene encoding GIRK2 are associated with Keppen-Lubinsky Syndrome, a rare disease characterized by severe developmental delay, facial dysmorphism, and intellectual disability (11).

Background References

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2. Kubo, Y. et al. (1993) *Nature* 364, 802-6.
3. Krapivinsky, G. et al. (1995) *Nature* 374, 135-41.
4. Isomoto, S. et al. (1997) *Jpn J Physiol* 47, 11-39.
5. Duprat, F. et al. (1995) *Biochem Biophys Res Commun* 212, 657-63.
6. Corey, S. and Clapham, D.E. (1998) *J Biol Chem* 273, 27499-504.
7. Han, J. et al. (2003) *J Physiol* 550, 693-706.
8. Nockemann, D. et al. (2013) *EMBO Mol Med* 5, 1263-77.
9. Ferrer, J. et al. (1995) *J Biol Chem* 270, 26086-91.
10. Sakura, H. et al. (1995) *FEBS Lett* 367, 193-7.
11. Masotti, A. et al. (2015) *Am J Hum Genet* 96, 295-300.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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