Revision 1

Store at -20C

#8989

KCNE1 (D2D5) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	15	Rabbit IgG	#P15382	3753

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	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

KCNE1 (D2D5) Rabbit mAb recognizes endogenous levels of total KCNE1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn75 of human KCNE1 protein.

Background

Voltage-gated potassium channels play a variety of important roles in human health and disease (1,2). KCNE1, also known as MinK, belongs to a family of small transmembrane proteins (KCNE1, 2, 3, 4, and KCNE1L) that modulate the activity of several voltage-gated K^+ channels (3-5). KCNE1 functions as the modulatory β-subunit of the pore-forming α-subunit KCNQ1, and alters several biophysical properties of KCNQ1 channels (6,7). Research studies have shown that several inherited mutations in KCNE1 result in long QT syndrome (8-10) and deafness (11).

Background References

1. Jespersen, T. et al. (2005) *Physiology (Bethesda)* 20, 408-16.
2. Robbins, J. (2001) *Pharmacol Ther* 90, 1-19.
3. Takumi, T. et al. (1988) *Science* 242, 1042-5.
4. Abbott, G.W. and Goldstein, S.A. (2001) *Mol Interv* 1, 95-107.
5. McCrossan, Z.A. and Abbott, G.W. (2004) *Neuropharmacology* 47, 787-821.
6. Barhanin, J. et al. (1996) *Nature* 384, 78-80.
7. Sanguinetti, M.C. et al. (1996) *Nature* 384, 80-3.
8. Splawski, I. et al. (1997) *Nat Genet* 17, 338-40.
9. Abbott, G.W. and Goldstein, S.A. (2002) *FASEB J* 16, 390-400.
10. Tian, C. et al. (2007) *Biochemistry* 46, 11459-72.
11. Peters, T.A. et al. (2004) *Pediatr Nephrol* 19, 1194-201.

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 **Mk:** Monkey

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Limited Uses

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