Revision 1

Store at -20C

#81935

KCTD12 (D8V4J) 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	Endogenous	33	Rabbit IgG	#Q96CX2	115207

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

KCTD12 (D8V4J) Rabbit mAb recognizes endogenous levels of total KCTD12 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro177 of human KCTD12 protein.

Background

Potassium channel tetramerization domain-containing protein 12 (KCTD12) belongs to the family of KCTD proteins, which also contains KCTD8, 12b, and 16. These proteins are auxiliary subunits of GABAB receptors (1). The principal subunit of the $GABA_B$ receptor is formed by two $GABA_B$ receptors, which bind to $GABA_B$ ligands, couple to G proteins to inhibit adenylate cyclase production, and gate ion channels (e.g., the GIRK channels) (2). The auxiliary subunits contribute to receptor desensitization. KCTD12 produces fast desensitization by uncoupling the βγ subunits of the G protein from their effector channels (3). Research studies indicate that KCTD12 represents a biomarker with diagnostic and prognostic potential for gastrointestinal stromal tumors (4).

Background References

1. Schwenk, J. et al. (2010) *Nature* 465, 231-5.
2. Gassmann, M. and Bettler, B. (2012) *Nat Rev Neurosci* 13, 380-94.
3. Turecek, R. et al. (2014) *Neuron* 82, 1032-44.
4. Hasegawa, T. et al. (2013) *Hum Pathol* 44, 1271-7.

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 nonfat dry milk, 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

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Limited Uses

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