10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNQ5 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant KCNQ5.
Catalog # AT2604a

Product Information

Application	WB, E
Primary Accession	Q9NR82
Other Accession	NM_019842
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	2E3
Calculated MW	102179

Additional Information

Gene ID	56479
Other Names	Potassium voltage-gated channel subfamily KQT member 5, KQT-like 5, Potassium channel subunit alpha KvLQT5, Voltage-gated potassium channel subunit Kv75, KCNQ5
Target/Specificity	KCNQ5 (NP_062816, 833 a.a. ~ 932 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	KCNQ5 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

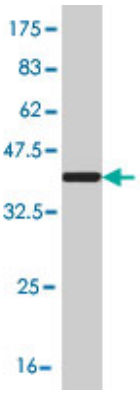
Background

This gene is a member of the KCNQ potassium channel gene family that is differentially expressed in subregions of the brain and in skeletal muscle. The protein encoded by this gene yields currents that activate slowly with depolarization and can form heteromeric channels with the protein encoded by the KCNQ3 gene. Currents expressed from this protein have voltage dependences and inhibitor sensitivities in common with M-currents. They are also inhibited by M1 muscarinic receptor activation. Multiple transcript variants encoding different isoforms have been found for this gene.

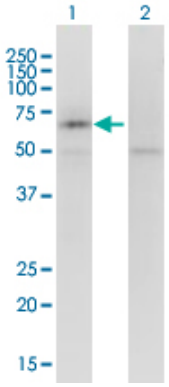
References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.Functional implications of KCNE subunit expression for the Kv7.5 (KCNQ5) channel. Roura-Ferrer M, et al. Cell Physiol Biochem, 2009. PMID 19910673.Homomeric and heteromeric assembly of KCNQ (Kv7) K+ channels assayed by total internal reflection fluorescence/fluorescence resonance energy transfer and patch clamp analysis. Bal M, et al. J Biol Chem, 2008 Nov 7. PMID 18786918.

Images

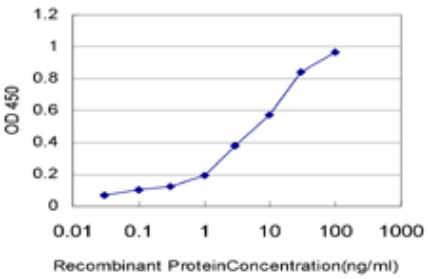


Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.74 KDa) .



Western Blot analysis of KCNQ5 expression in transfected 293T cell line by KCNQ5 monoclonal antibody (M01), clone 2E2.

Lane 1: KCNQ5 transfected lysate (Predicted MW: 46.9 KDa).
Lane 2: Non-transfected lysate.



Detection limit for recombinant GST tagged KCNQ5 is approximately 0.1ng/ml as a capture antibody.