

KCNQ4 Antibody (monoclonal) (M01)**Mouse monoclonal antibody raised against a partial recombinant KCNQ4.****Catalog # AT2603a****Specification**

KCNQ4 Antibody (monoclonal) (M01) - Product Information

Application	WB, E
Primary Accession	P56696
Other Accession	NM_004700
Reactivity	Human, Mouse
Host	mouse
Clonality	Monoclonal
Isotype	IgG3 Kappa
Calculated MW	77101

KCNQ4 Antibody (monoclonal) (M01) - Additional Information**Gene ID** 9132**Other Names**

Potassium voltage-gated channel subfamily KQT member 4, KQT-like 4, Potassium channel subunit alpha KvLQT4, Voltage-gated potassium channel subunit Kv74, KCNQ4

Target/Specificity

KCNQ4 (NP_004691, 596 a.a. ~ 695 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

KCNQ4 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

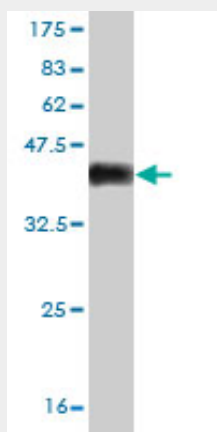
KCNQ4 Antibody (monoclonal) (M01) - Protocols

Provided below are standard protocols that you may find useful for product applications.

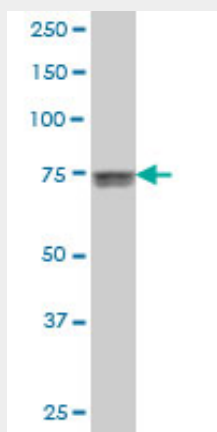
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

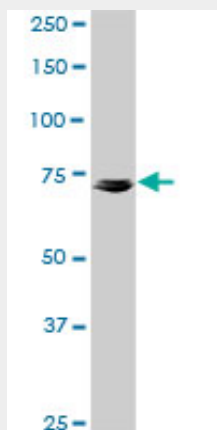
KCNQ4 Antibody (monoclonal) (M01) - Images



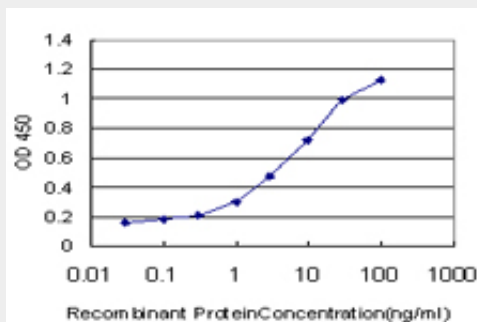
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 kDa) .



KCNQ4 monoclonal antibody (M01), clone 2H6 Western Blot analysis of KCNQ4 expression in IMR-32 ((Cat # AT2603a)



KCNQ4 monoclonal antibody (M01), clone 2H6. Western Blot analysis of KCNQ4 expression in NIH/3T3 (Cat # AT2603a)



Detection limit for recombinant GST tagged KCNQ4 is approximately 1ng/ml as a capture antibody.

KCNQ4 Antibody (monoclonal) (M01) - Background

The protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been found for this gene.

KCNQ4 Antibody (monoclonal) (M01) - References

DFNA2 Nonsyndromic Hearing Loss Smith RJH, et al. , 1993. PMID 20301388. Replication of previous genome-wide association studies of bone mineral density in premenopausal American women. Ichikawa S, et al. J Bone Miner Res, 2010 Aug. PMID 20200978. Analysis of gene polymorphisms associated with K ion circulation in the inner ear of patients susceptible and resistant to noise-induced hearing loss. Pawelczyk M, et al. Ann Hum Genet, 2009 Jul. PMID 19523148. Audioprofile-directed screening identifies novel mutations in KCNQ4 causing hearing loss at the DFNA2 locus. Hildebrand MS, et al. Genet Med, 2008 Nov. PMID 18941426. KCNQ4 mutations associated with nonsyndromic progressive sensorineural hearing loss. Nie L. Curr Opin Otolaryngol Head Neck Surg, 2008 Oct. PMID 18797286.