

**KCNQ1 Antibody**  
**KCNQ1 Antibody, Clone S37A-10**  
**Catalog # ASM10185**

**Specification**

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**KCNQ1 Antibody - Product Information**

Application	<b>IHC, WB</b>
Primary Accession	<a href="#">P51787</a>
Other Accession	<a href="#">NP_000209.2</a>
Host	<b>Mouse</b>
Isotype	<b>IgG1</b>
Reactivity	<b>Human, Mouse, Rat, Hamster</b>
Clonality	<b>Monoclonal</b>
Format	<b>FITC</b>

**Description**

Mouse Anti-Human KCNQ1 Monoclonal IgG1

**Target/Specificity**

Detects ~75kDa.

**Other Names**

ATFB1 Antibody, ATFB3 Antibody, FLJ26167 Antibody, IKs producing slow voltage-gated potassium channel subunit alpha Antibody, IKs producing slow voltage-gated potassium channel subunit alpha KvLQT1 Antibody, Jervell and Lange-Nielsen syndrome 1 Antibody, JLNS1 Antibody, KCNA8 Antibody, KCNA9 Antibody, KCNQ1 Antibody, KCNQ1\_HUMAN Antibody, kidney and cardiac voltage dependend K+ channel Antibody, KQT-like 1 Antibody, Kv1.9 Antibody, Kv7.1 Antibody, KVLQT1 Antibody, long (electrocardiographic) QT syndrome Antibody, Ward-Romano syndrome 1 Antibody, LQT Antibody, LQT1 Antibody, Potassium voltage-gated channel subfamily KQT member 1 Antibody, potassium voltage-gated channel KQT-like subfamily member 1 Antibody, RWS Antibody, slow delayed rectifier channel subunit Antibody, SQT2 Antibody, Voltage-gated potassium channel subunit Kv7.1 Antibody, WRS Antibody

**Immunogen**

Fusion protein amino acids 2-101 of human KCNQ1

**Purification**

Protein G Purified

Storage **-20°C**

**Storage Buffer**

PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature **Blue Ice or 4°C**

**Certificate of Analysis**

1 µg/ml of SMC-307 was sufficient for detection of KCNQ1 in 10 µg of COS-1 cell lysate transiently expressing KCNQ1 by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

**Cellular Localization**

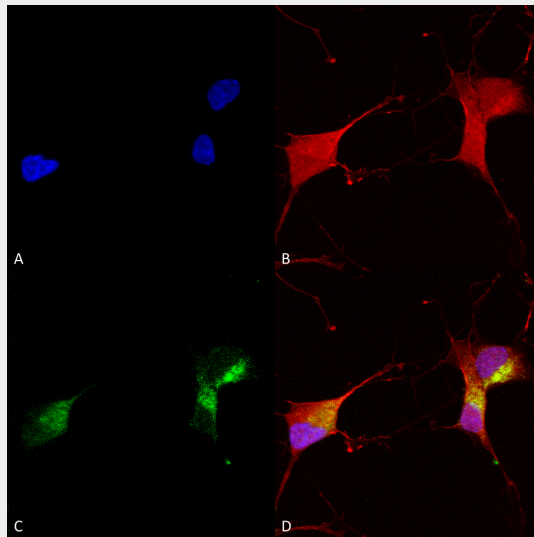
Cell Membrane | Cytoplasmic Vesicle Membrane

## KCNQ1 Antibody - Protocols

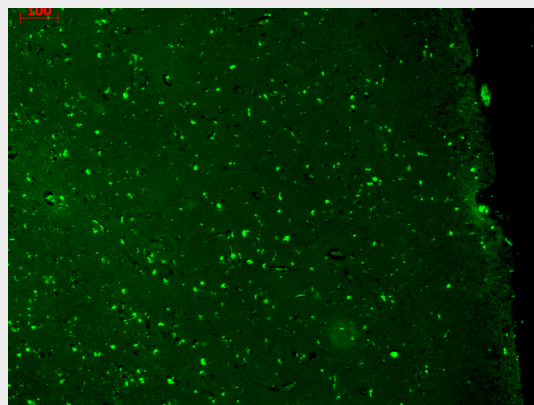
Provided below are standard protocols that you may find useful for product applications.

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

## KCNQ1 Antibody - Images

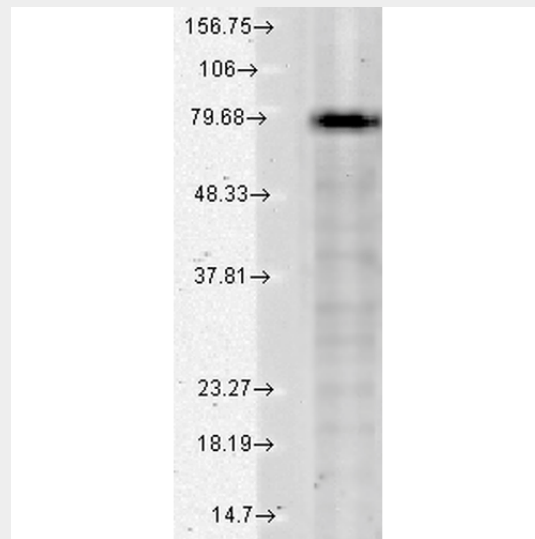


Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-KCNQ1 Monoclonal Antibody, Clone N37A/10 (ASM10185). Tissue: Neuroblastoma cells (SH-SY5Y). Species: Human. Fixation: 4% PFA for 15 min. Primary Antibody: Mouse Anti-KCNQ1 Monoclonal Antibody (ASM10185) at 1:100 for overnight at 4°C with slow rocking. Secondary Antibody: AlexaFluor 488 at 1:1000 for 1 hour at RT. Counterstain: Phalloidin-iFluor 647 (red) F-Actin stain; Hoechst (blue) nuclear stain at 1:800, 1.6mM for 20 min at RT. (A) Hoechst (blue) nuclear stain. (B) Phalloidin-iFluor 647 (red) F-Actin stain. (C) KCNQ1 Antibody (D) Composite.

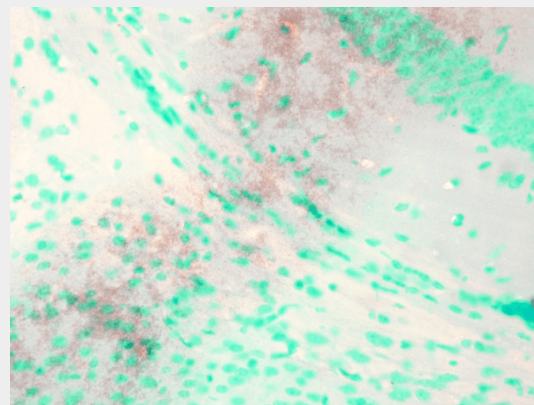


Immunohistochemistry analysis using Mouse Anti-KCNQ1 Monoclonal Antibody, Clone N37A/10

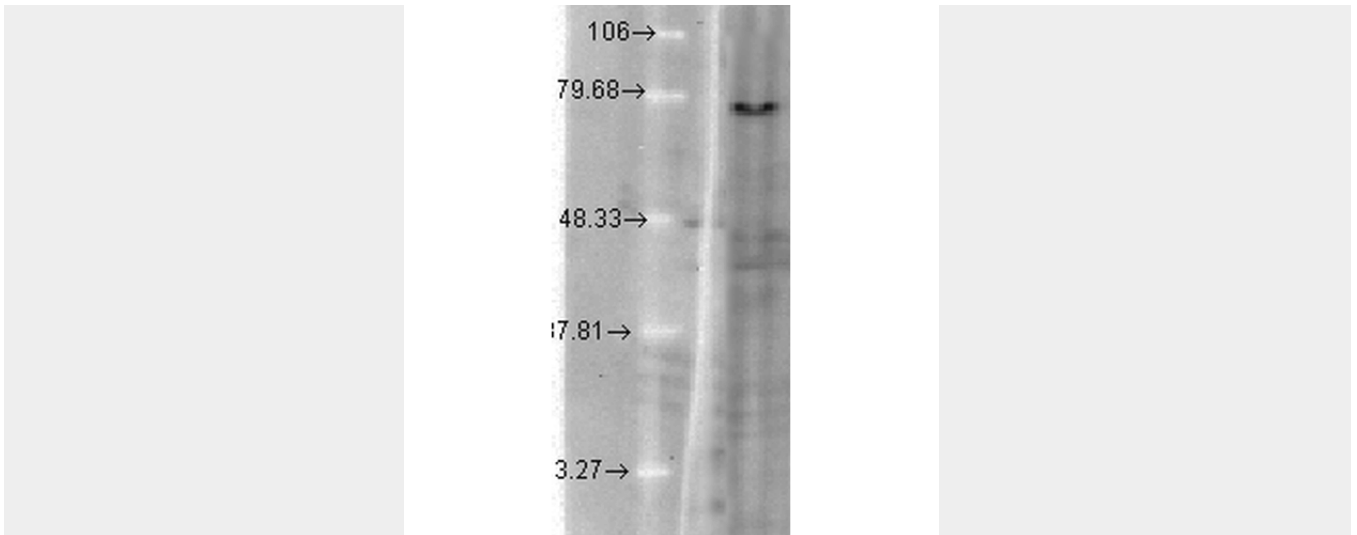
(ASM10185). Tissue: hippocampus. Species: Human. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-KCNQ1 Monoclonal Antibody (ASM10185) at 1:1000 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT.



Western Blot analysis of Human Cell lysates showing detection of KCNQ1 protein using Mouse Anti-KCNQ1 Monoclonal Antibody, Clone N37A/10 (ASM10185). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-KCNQ1 Monoclonal Antibody (ASM10185) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



Immunohistochemistry analysis using Mouse Anti-KCNQ1 Monoclonal Antibody, Clone N37A/10 (ASM10185). Tissue: Brain Slice. Species: Mouse. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-KCNQ1 Monoclonal Antibody (ASM10185) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 µl for 5 minutes at RT.



Western Blot analysis of Hamster T-CHO cell lysate showing detection of KCNQ1 protein using Mouse Anti-KCNQ1 Monoclonal Antibody, Clone N37A/10 (ASM10185). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-KCNQ1 Monoclonal Antibody (ASM10185) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

#### **KCNQ1 Antibody - Background**

Kv7.1 (KvLQT1) is a potassium channel protein coded for by the gene KCNQ1. Kv7.1 is present in the cell membranes of cardiac muscle tissue and in inner ear neurons (1) among other tissues. In the cardiac cells, Kv7.1 mediates the IKs (or slow delayed rectifying K<sup>+</sup>) current that contributes to the repolarization of the cell, terminating the cardiac action potential and thereby the heart's contraction (2, 3).

#### **KCNQ1 Antibody - References**

1. Lang F., Vallon V., Knipper M., Wagenmann P. (2007) *Am J Physiol.* 293(4): C1187-1208.
2. Kurokawa J., et al. (2009) *Channels (Austin).* 3(1): 16-24.
3. Silva J., and Rudy Y. (2005) *Circulation.* 112(10): 1384-1391.