

Anti-KCNQ1 K⁺ Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 11510 (clone S37A-10)
Size: 100ug in PBS, pH 7.4; 50% glycerol, 0.09% sodium azide. Purified by Protein G affinity chromatography.

BACKGROUND

Ion channels are integral membrane proteins that help establish and control the small voltage gradient across the plasma membrane of living cells by allowing the flow of ions down their electrochemical gradient. $K_{v}7.1$ (KvLQT1) is a potassium channel protein coded for by the gene KCNQ1. $K_{v}7.1$ is present in cell membranes of cardiac muscle tissue and in inner ear neurons among other tissues. In cardiac cells, $K_{v}7.1$ mediates the I_K (or slow delayed rectifying K³) current that contributes to repolarization of the cell, terminating the cardiac potential and, thereby, the heart's contractions.

SPECIFICATION SUMMARY

Antigen: Fusion protein aa 2-101 of human KCNQ1 (K_v7.1, KvLQT1, accession number P51787).

Host Species: Mouse

Antibody Class: IgG1

SPECIFICITY

This antibody recognizes human, mouse, and rat KCNQ1.

APPLICATIONS

Immunoblotting: use at 1-10ug/ml. A band of ~75kDa is detected.

Immunohistochemistry and

Immunocytochemistry: use at 0.1-1ug/ml

Immunofluorescence: use at 1-10ug/ml.

These are recommended concentrations.

User should determine optimal

concentrations for their application.

Positive control: COS cell lysate transiently expressing KCNQ1.

DILUTION INSTRUCTIONS

Dilute in PBS or medium which is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at -20°C. Avoid repeated freezing and thawing.

For in vitro investigational use only. Not for use in therapeutic or diagnostic procedures.