

## Anti-KCNQ4 K<sup>+</sup> Monoclonal Antibody

### ORDERING INFORMATION

**Catalog No.:** 11512 (clone S43-6)

**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. The protein coded for by the KCNQ4 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.

### SPECIFICATION SUMMARY

**Antigen:** Fusion protein aa 2-77 of human KCNQ4 (K<sub>v</sub>7.4, KvLQT4, accession number P56696).

**Host Species:** Mouse

**Antibody Class:** IgG1

### SPECIFICITY

This antibody recognizes human, mouse, and rat KCNQ4.

### APPLICATIONS

*Immunoblotting:* use at 1-10ug/ml. A band of ~77kDa 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 KCNQ4.

### 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.*