Anti-Potassium Channel Kv11.1 Extracellular
(Anti-HERG; Anti-KCNH2)
produced in rabbit, affinity isolated antibody

Product Number P0749

Product Description
Anti-Potassium Channel Kv11.1 Extracellular was
developed in rabbit using a peptide AFLKETEEG-
PPATEC corresponding to residues 430-445 of human
Kv11.1 as the immunogen. This sequence has 11/16
residues identical in mouse and rat, and has 15/16
residues identical in rabbit and dog. The antibody was
affinity isolated on immobilized immunogen.

Anti-Potassium Channel Kv11.1 recognizes Kv11.1 by
immunocytochemistry and by Western blotting of HEK-
Kv11.1 transfected cells. It has also been used to detect
Kv11.1 by indirect Flow Cytometry of live intact K562
(human chronic myelogenous leukemia) cells.

The vast family of K⁺ channels has been subdivided into
the three main subfamilies, depending on the number of
transmembrane domains: the 2 TM, 4 TM and 6 TM K⁺
channels.1,2 The 6 TM family includes the voltage-gated
potassium (Kᵥ) channels, the KCNQ channels, the EAG
channels (also including the hERG channels), and the
calcium-activated potassium channels BK (Slo) and SK.

Kᵥ11.1 is a member of the Ether-a-go-go (EAG) family
of voltage-activated K⁺ channels.3 The hERG channel
is crucial for normal action potential repolarization in
cardiac myocytes. Mutations in the Kᵥ11.1 channel
cause inherited long QT syndrome, abnormalities in the
repolarization of the heart that are associated with life-
threatening arrhythmias and sudden death, and the
drug-induced (antipsychotic therapy) long-QT syndrome
is nearly always the result of blockage of this channel.4,5
The Kᵥ11.1 channel is also being investigated as a
possible target for cancer chemotherapy for its role in
cell proliferation.3,6

Reagent
The antibody is supplied as lyophilized powder from
phosphate buffered saline, pH 7.4, containing 1%
bovine serum albumin and 0.05% sodium azide as
preservative.

Precautions and Disclaimer
Due to the sodium azide content, a material safety data
sheet (MSDS) for this product has been sent to the
attention of the safety officer of your institution. Consult
the MSDS for information regarding hazards and safe
handling.

Preparation Instructions
Reconstitute the lyophilized vial with 0.05 or 0.2 ml
dionized water, depending on package size. Further
dilutions should be made using a carrier protein such as
BSA (1%).

Storage/Stability
Lyophilized powder can be stored intact at room
temperature for several weeks. For extended storage, it
should be stored at −20 °C or below. The reconstituted
solution can be stored at 2-8 °C for up to 2 weeks. For
longer storage, freeze in working aliquots. Avoid
repeated freezing and thawing. Storage in “frost-free”
freezers is not recommended. Centrifuge before use.
Working dilution samples should be discarded if not
used within 12 hours.

Product Profile
The recommended working dilutions are 1:200 for
immunoblotting, 1:25 for immunocytochemistry, and
2-8 µg antibody / 1x10⁶ cells for Indirect Flow
Cytometry.

Note: In order to obtain best results in different
techniques and preparations we recommend
determining optimal working concentration by titration
test.

References
1. Alexander, S.P., et al., Guide to receptors and
channels, 1st edition, Br. J. Pharmacol., 141, Suppl
1:S1-S126 (2004).
2. Gutman, G.A., et al., International Union of
Pharmacology. XLI. Compendium of voltage-gated
ion channels: potassium channels. Pharmacol.

