

PrecisION[®] hKv7.2/hKv7.3 Recombinant Stable Cell Line

Catalog Number CYL3059

Lot Number

See Vial

Contents 2 Vials, 2 x 10⁶ to 4 x 10⁶ in 1 mL

Background Information

Kv7.2 and Kv7.3 are both voltage-gated, delayed rectifier potassium channels. Together they co assemble to form the M current in the brain. The M current is a slowly activating and deactivating potassium conductance that plays a crucial role in determining the excitability of neurons as well as their responsiveness to synaptic inputs. This current is also expressed in many neurons in the central nervous system. Enhancers of the M current are used for antiepileptic therapy and blockers have been shown to enhance learning and memory.

Product Information

Description Recombinant CHO-K1 cell line co-expressing the human Kv7.2 (voltage-gated potassium channel, KQT-like subfamily, member 2 (KCNQ2)) and the human Kv7.3 (voltage-gated potassium channel, KQT-like subfamily, member 3 (KCNQ3))

Family Potassium, Voltage-Gated

Target Kv7.2/Kv7.3

	Target Protein	Accession Number
1	Kv7.2	Y15065
2	Kv7.3	NM_004519
3	N/A	N/A
4	N/A	N/A

Species Human

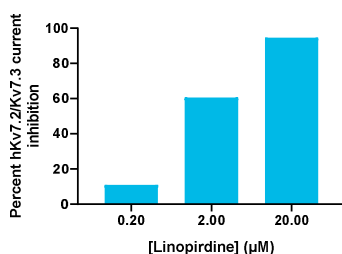
Host Cell Type CHO-K1

Application Electrophysiology assay (conventional and automated patch clamp platforms)

Storage Vials are to be stored in vapor phase of liquid nitrogen

Functional Performance

CHO-K1 cells expressing hKv7.2/hKv7.3 were characterized in terms of their pharmacological and biophysical properties using whole-cell patch clamp techniques.



Electrophysiology Method MPC

Reference Agonist

Reference Antagonist TEA

Antagonist IC₅₀ (µM)

Passage Stability

This cell line has been confirmed to be stable through at least 12 passages with no significant drop in assay window or change in pharmacology.

Mycoplasma Testing

This lot was tested and found to be free of mycoplasma contamination. Data available upon request.

Notes

Additional functional (pharmacological and electrophysiological) validation on multiple platforms is available upon request.

Additional Ligand Information

Control Compound TEA

Vendor Name : Sigma-Aldrich

Vendor Catalog No. T2265

Additional Background Information

N/A

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