

Human Kv3.4 Potassium Channel Cell Line

Catalog #CT6140

SPECIFICATIONS:

Class: Voltage-gated potassium channel
Expression system: HEK293 cells, constitutive expression
Gene name: KCNC4
Mycoplasma status: Negative (MycoAlert Kit)
Packaging: Cryopreserved cells, 6x10⁶ cells/vial
Storage recommendation: Liquid nitrogen
Automated assay: PatchXpress[®]

BACKGROUND: The human KCNC4 gene encodes the pore-forming subunit of Kv3.4, a voltage-gated potassium channel. Kv3.4 channels expressed in neurons are therapeutic targets in Alzheimer's disease.

REPRESENTATIVE DATA:

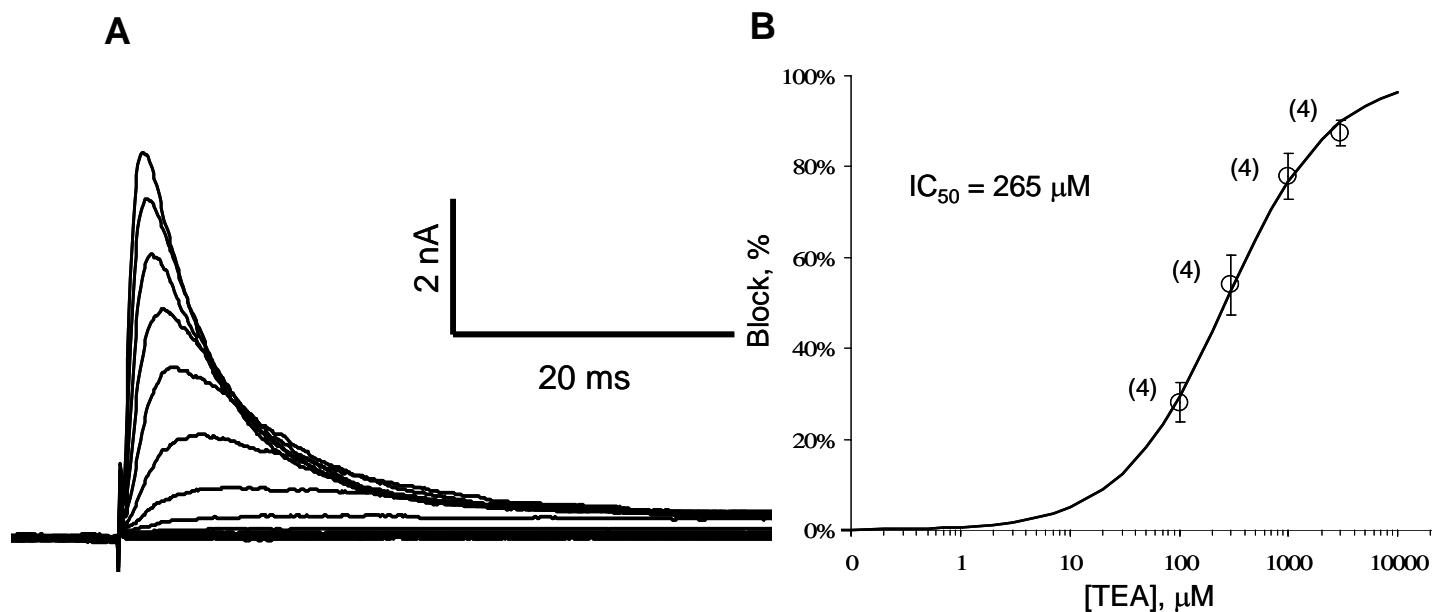


Figure 1. **A:** hKv3.4 current-voltage family recorded by PatchXpress[®]. Whole-cell currents were elicited by test pulses from -60 to +60 mV in 10 mV increments from holding potential, -80 mV. **B:** Concentration-response relationship for tetraethylammonium inhibition of peak hKv3.4 currents at a test potential of +20 mV. The IC₅₀ value for TEA block was 265 μM.

REFERENCE: Gutman GA, et al. 2005. Pharmacol Rev. 57:473-508. International Union of Pharmacology. LIII. Nomenclature and molecular relationships of voltage-gated potassium channels.