

Product Specification:

QPatch

QCells

CHO-K_vLQT1/minK optimized for the QPatch



- Cells optimized for the QPatch
- Tight sealing properties
- Optimal success rate
- Stable current response
- Cell line support
- Optimized Ringer's solutions
- Custom assay and analysis

See specifications on back

K_vLQT1/minK (hk_v7.1/KCNE1) is a voltage-gated K⁺-selective ion channel expressed in the heart, where it is responsible for the slow component of the delayed rectifier K⁺ current (I_{ks}), that contributes to the termination of the action potential. The channel is involved in long QT syndrome.

Sophion's unique experience with automated patch clamping and cell culture optimizations means that we can offer QPatch optimized cells, QCells, for your experiments, which guarantees a uniform cell line with a near perfect and stable expression profile. Sophion collaborates with a number of cell line vendors to provide your cell line of choice.

This QCell, K_vLQT1 /minK, is now available for purchase directly from Sophion, and was developed and optimized for QPatch experiments.

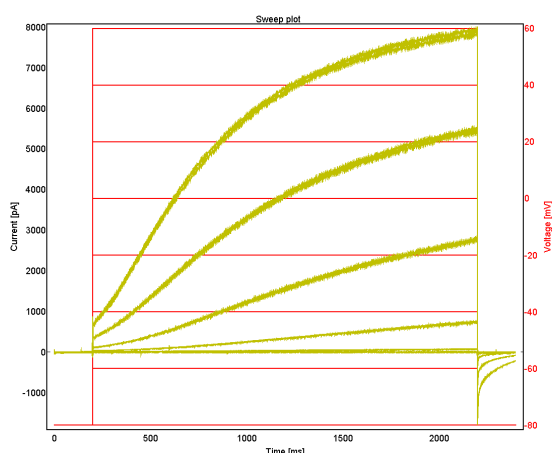


Fig. 1 Raw data showing current-voltage relationship of K_vLQT1/minK.

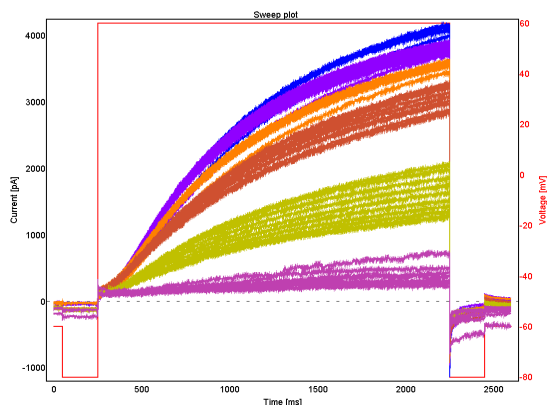


Fig. 2 Raw data traces from K_vLQT1/minK at increasing concentrations of XE-991.

QCell properties	
Passage stability	28
Mean current amplitude single-hole	8.5 nA
Mean current amplitude multi-hole	5.2 nA
IC ₅₀ XE-991	1271.4±536 nM, n=9
V _{1/2}	26.83±0.73 mV, n=6

QPlate success rates	Single-hole	Multi-hole	Frozen cell run (single-hole)
No. of QPlates	2	6	
Cell attachment (%)	99	100	
Seal > 100 MΩ (%)	28	33	
Seal > 1 GΩ (%)	58	0	
Whole-cells (%)	96	100	
Completed experiments (%)	73	100	
Representative whole-cell lifetime (min)	20	35	