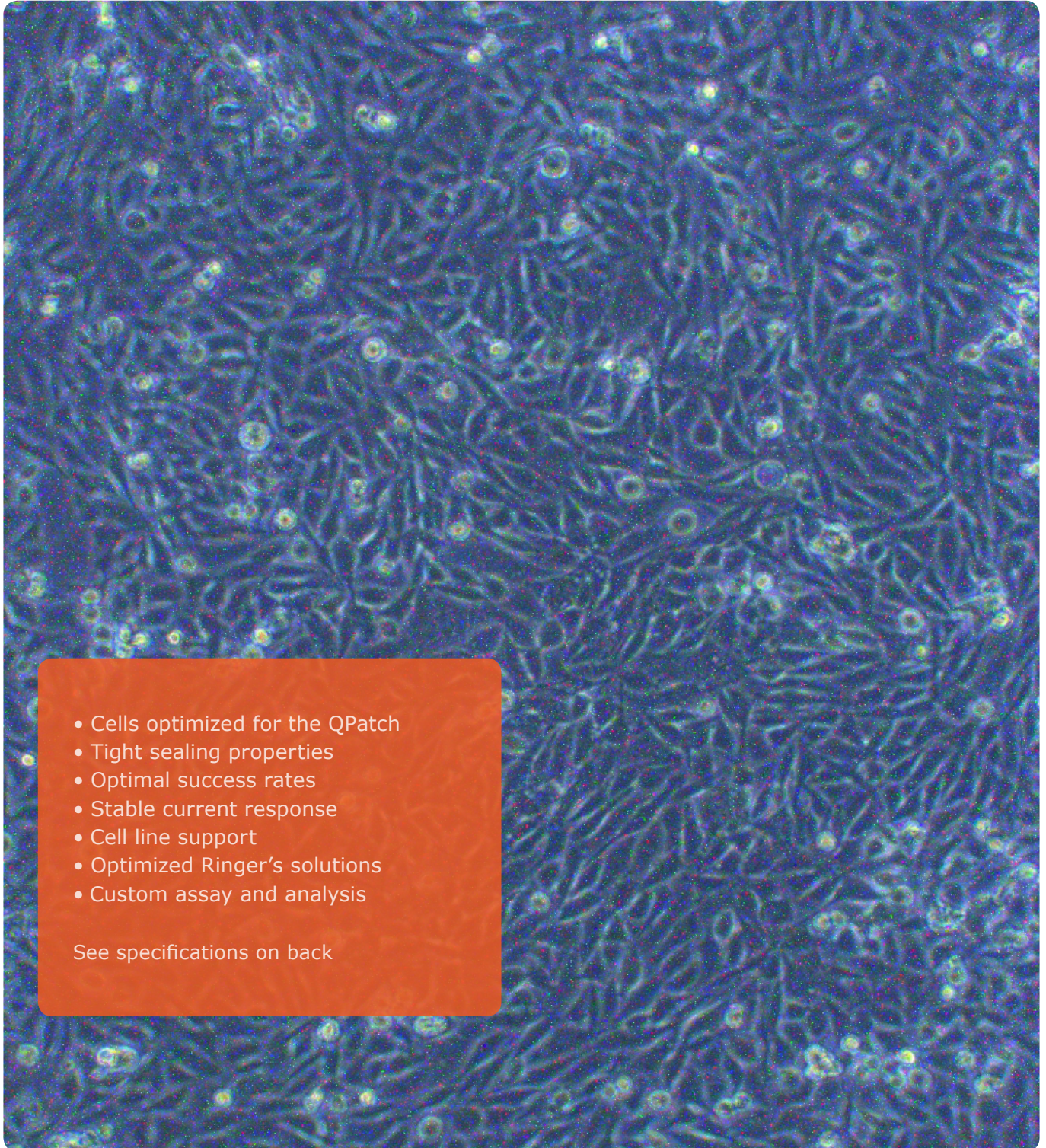


Product Specification:



QCells

HEK-ASIC1 optimized for the QPatch



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

See specifications on back

Acid-sensing ion channels (ASICs) are proton-gated cation channels and members of the ENaC family of proteins, which open and then enter a desensitized closed state in response to decreases in extracellular pH.

Recent studies have shown that activation of ASIC channels by protons plays an important role in a variety of physiological and pathological processes like nociception, mechanosensation, synaptic plasticity and acidosis-mediated neurological conditions such as ischemic stroke, brain trauma or epileptic seizures.

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, HEK-ASIC1a, is now available for purchase directly from Sophion, and was developed and optimized for QPatch experiments.

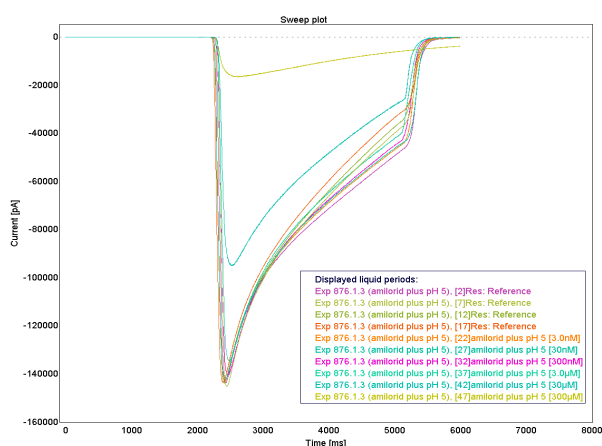


Fig. 1 Raw data traces of ASIC1a current elicited at pH 5 with increasing concentrations of amiloride

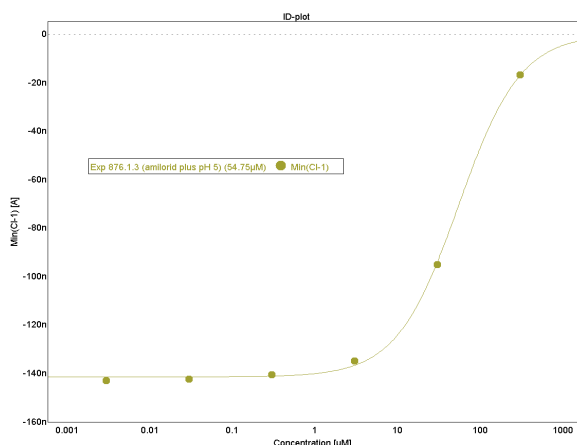


Fig. 2 Hill fit for amiloride

QCell properties

Mean current amplitude single-hole	10.6±2.6 nA
Mean current amplitude multi-hole	135± nA
H ⁺ EC ₅₀ (pH)	6.6
Amiloride IC ₅₀	55µM

QPlate success rates

	Single-hole	Multi-hole
Cell attachment (%)	94	100
Seal > 100 MΩ (%)	94	75
Seal > 1 GΩ	50	n/a
Whole-cells (%)	88	100
Completed experiments (%)	56	100
Representative whole-cell lifetime (min)	25	30