

QCells HEK-TRPV3 optimized for QPatch

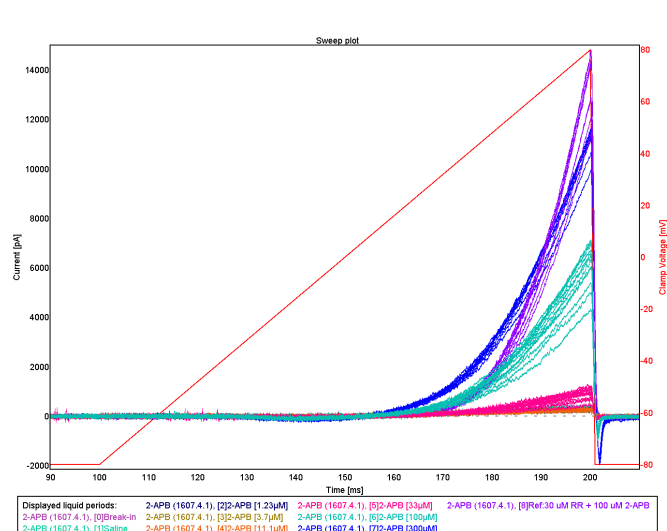
- Cells optimized for QPatch
- Tight sealing properties
- Optimal success rates
- Stable current response
- Cell line support
- Optimized Ringer's solution
- Custom assay and analysis

See specifications on back



QCells HEK-TRPV3 for QPatch

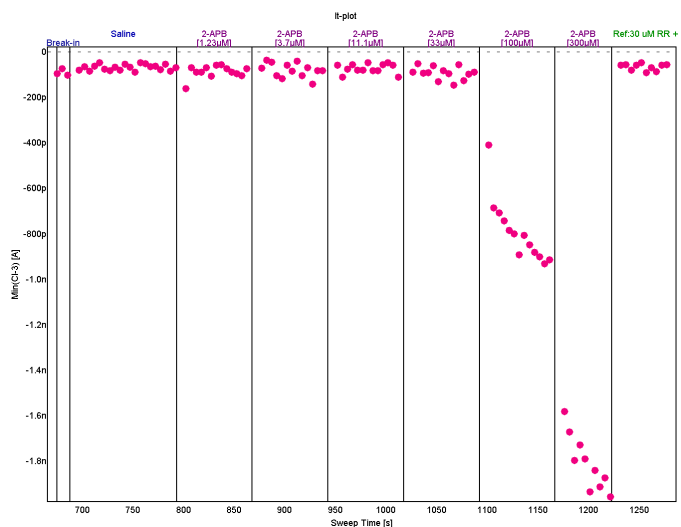
TRPV3 is a thermosensitive Ion channel and is expressed predominantly in the skin and neural tissues. TRPV3 is a member of the Thermo TRP family. TRPV3 is activated by warmth and it is hypothesized to be involved in skin sensitization. TRPV3 is believed to serve as a temperature sensor on the molecular level. TRPV3 is activated at 39°C.



[Fig. 1]: Raw traces of TRPV3 current elicited by a ramp voltage-protocol from -80 mV to +80 mV over 100 ms using six increasing concentrations of 2-APB as agonist. Ruthenium Red was added in the last period for a full block of the current.

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-TRPV3, is now available for purchase directly from Sophion, and was developed and optimized in collaboration with SB Drug Discovery.



[Fig. 2]: Time-current plot showing six increasing concentrations of 2-AP and a full block in the end of the experiment with Ruthenium Red.

QCell Properties

| | |
|------------------------------------|-------------------|
| Mean current amplitude single-hole | 11.2±1 nA, n=19 |
| Mean current amplitude multi-hole | 27.9±2.4 nA, n=16 |
| IC ₅₀ 2-APB | 109.2±3.5 µM |

QPlate Success Rates

| | Single-hole | Multi-hole |
|--|-------------|------------|
| No. of QPlates | 5 | 1 |
| Cell attachment (%) | 94 | 100 |
| 100 MΩ < R _{mem} < 1 GΩ (%) | 16 | n/a |
| R _{mem} > 1 GΩ (%) | 69 | n/a |
| Whole-cells (%) | 66 | 100 |
| Completed experiments (%) | 66 | 100 |
| Representative whole-cell lifetime (min) | 13 | 11 |