

Product Specification:

QPlate - Measurement plate for QPatch

- GΩ seal formation in physiological solution
- No maintenance of electrodes, always ready
- Microfluidic channels enable washes and application of multiple concentrations/compounds per well
- Microfluidic channels ensure fast and accurate liquid exchange
- Glass-coated flow channels minimize adsorption of compounds
- Cell positioning and whole-cell configuration formed by suction
- 8, 16 or 48 individually controlled patch clamp measurement sites
- Single- and multi-hole technology
- Different patch-clamp hole sizes on request
- Different numbers of holes in multi-hole QPlates on request

The heart of the QPatch technology is the silicon-based patch-clamp orifice that replaces conventional glass pipettes known from manual patch clamping and enables giga-ohm seals in physiological solutions, something that is not a given with planar patch clamping. Therefore, the QPlate technology is proprietary to Sophion.

QPlate has microfluidic architecture to enable fast and accurate liquid exchange. Combined with the glass surface, you get a consumable that ensures high fidelity data for voltage-, ligand-, pressure- and temperature-gated ion channels.

In the QPlate there is a waste reservoir for each site, allowing multiple compounds or concentrations of compound to be added to the same site, so each site acts as its own control. Throughput is also increased that way.

The QPlates exist in both single- and multi-hole (X) versions; the latter evens out cell-to-cell biological variations, providing sufficient current for low expressing cells and increases success rates. Different sizes and numbers of holes are available on request.

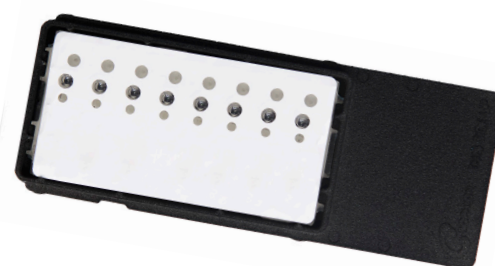
QPlate recording sites are equipped with individual electrode pairs that are maintenance-free, ready out of the box, inexhaustible and resistant to electrode drift, ensuring that the electrophysiological recordings are as consistent and accurate as possible every time.



QPlate 48X



QPlate 16X



QPlate 8

	QPlate 8	QPlate 8X	QPlate 16	QPlate 16X	QPlate 48	QPatch 48X
QPatch Compact	•	•				
QPatch 16			•			
QPatch 16X			•	•		
QPatch 48					•	
QPatch 48X					•	•

QPlate Dimensions:	QPlate 8	QPlate 8X	QPlate 16	QPlate 16X	QPlate 48	QPlate 48X
Dimensions L x W x H (mm)	115 x 48 x 9 mm		128 x 85 x 7 mm			
Weight	24 g		27 g		62 g	
Chips/plate	8		16		48	
Patch clamp holes per site	1	10	1	10	1	10
Site resistance (MΩ)	2.0 ± 0.4	0.2 ± 0.04	2.0 ± 0.4	0.2 ± 0.04	2.0 ± 0.4	0.2 ± 0.04
Frame colour	Black	Blue	Black	Blue	Black	Blue
Max. pipetting	15 µL					
Min. pipetting	2 µL					
Waste reservoir	250 µL					
Chip material	Si/glass					
Chip capacitance	55 ± 5 pF					
Minimum order	5					
Pack size	1		5			
Shelf life	6 months					
Storage conditions	5°C					
Opened pack life	1 week		1 day		1 day each insert	

Sophion Bioscience A/S

info@sophion.com

sophion.com