

Product Specifications:

QChip 384 Measurement Plate for Qube 384

- 384 individual patch clamp sites with integrated flow channels
- 384 individual pairs of maintenance-free integrated electrodes
- Voltage-clamp and current-clamp on same QChip type
- Voltage-, ligand-gated and optical stimulation on same QChip type
- Single-, 10-hole and variable number of holes in QChip are standard
- Custom number of holes and hole sizes
- QChip suited for e.g., organelle and small cell patch clamp



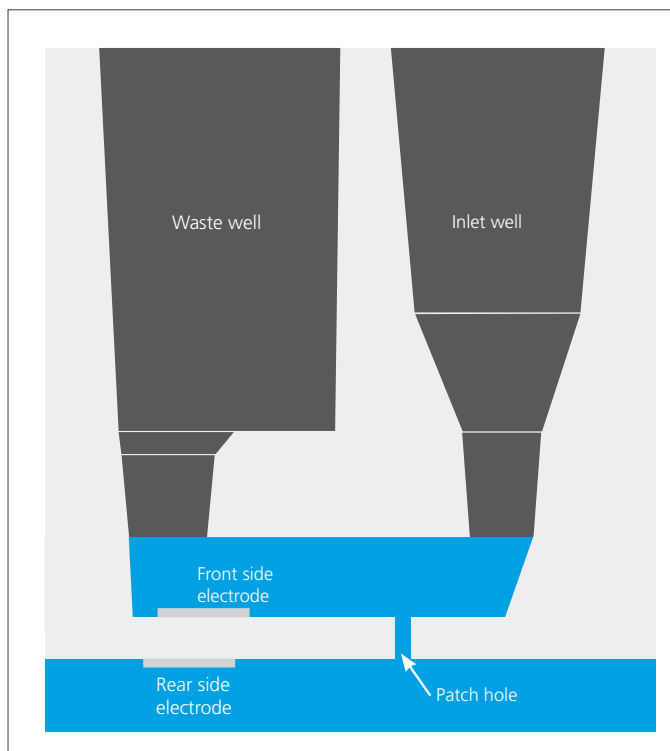
One of the core technologies in the Qube system is the QChip 384. QChip 384 integrates 384 individual patch clamp sites into one plate.

QChip 384 has built-in microfluidic flow channels that ensure a fast and complete exchange of liquid. This means that the ion channel always experiences the test compound at the exact time and concentration desired for your experiment, without the undesired need for compound dilution like in an open well system. The flow channels and intelligent handling by the robot also mean you can add an unlimited series of compounds or concentrations to the same site.

QChip 384 has conventional Ag/AgCl-electrode pairs for each site, allowing for stable recordings over a long period. There is no need for electrode maintenance, and the QChip is always ready to use.

QChip 384 exists in versions with both a single-hole (QChip 384), a 10-hole (QChip 384X), a variable number of holes (QChip 384D) and custom numbers and sizes of holes.

Sophion also provides QChips with decreased patch hole diameter, suited for e.g., organelle and small cell patch clamp.



QChip 384

Features & outcome

Features	Outcome
Integrated individual flow channels	Precise, fast and complete liquid exchange allowing for infinite liquid additions
Integrated individual electrodes	Stable recording over long periods without the need for maintenance
Barcode	Makes Qube recognize type of QChip e.g., for employing Rs-compensation [□] , current clamp* or not and for ensuring full traceability of results

*Optional feature for Qube

Dimensions	QChip 384	QChip 384X	QChip 384D	QChip 384 Custom
Cat. no.	SB2110	SB2115	SB2171	SB21nn
Colour	Black	Black	Black	Black
L x W x H (mm)	128 x 86 x 11	128 x 86 x 11	128 x 86 x 11	128 x 86 x 11
Weight	74 g	74 g	74 g	74g
Measurement sites	384	384	384	384
Patch clamp holes per site	1	10	1, 2, 6, 10, 16 & 36	Optional (=nn)
Site resistance	2.0 ± 0.4 MΩ*	0.2 ± 0.04 MΩ*	[0.06 - 2] MΩ*	Depending on nn
Volume surrounding cell	2 µl	2 µl	2 µl	2 µl
Waste reservoir	26 µl [□]	26 µl [□]	26 µl [□]	26 µl [□]
Possible liquid additions	∞	∞	∞	∞

* Depends on solutions

[□] The liquid handler removes the waste continuously throughout the experiment

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