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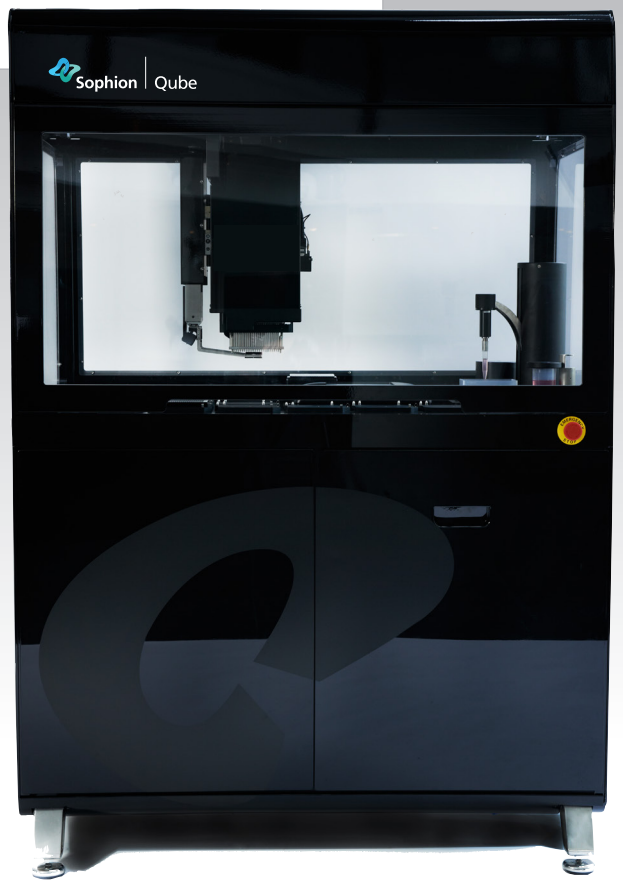
Sophion | [Product Specifications]

Sophion Qube
High Throughput Screening with Automated Patch Clamp

Sophion Qube offers you:

- High throughput screening for ion channel targeting
- Reliable pharmacology
- Reduced hit validation phase
- Simple and unattended operation



Qube - automated patch clamp

Qube bridges the gap between high throughput (HTS) and high quality in ion channel assays.

Qube is a high throughput automated patch clamp system for whole-cell measurements on ion channels. It produces high quality data and enables more than 30,000 data points per 24 hours.

The Qube utilizes a 384-well measurement plate and records from all 384 channels in parallel with an equal number of amplifiers and pipettes. The planar patch clamp chip – the QChip, enables giga-Ohm seals and thereby good voltage control in your recordings. The QChip is offered in a single- as well as a multi-hole version. Microfluidic channels in the QChip provide fast and complete liquid exchange during the experiment. Qube is modular and can be equipped with plate stacker and autofill reservoirs for many hours of unattended operation. Qube also lends itself to integration into HTS laboratory robot lines with any third party instrument, for absolutely minimal hands-on time.

The data generated by your Qube system is analyzed during execution of the experiments with Sophion Analyzer and the results can be exported to in-house databases. The software for controlling Qube, called ViewPoint, is intuitive and flexible to allow customer specific screening scenarios. The planning, execution as well as online readout is provided in Viewpoint.

Qube Features

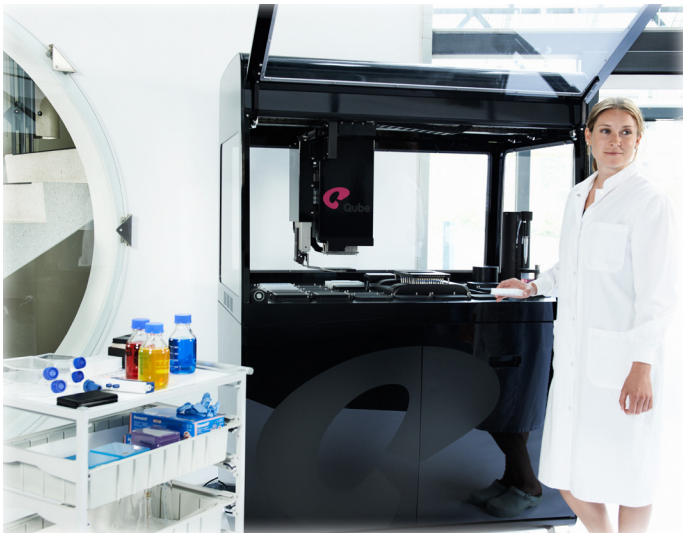
	Multi-hole QChip 384	Single-hole QChip 384
Ligand- and voltage-gated experiments	•	•
Giga-Ohm seals	•*	•
R_{Series} compensation		•
C_{Cell}, C_{Slow} and leak compensation	•	•
Pipetting	384-block	384-block
Consumable foot print	SBS-standard	SBS-standard
Auxiliary plate compatibility	All	All
Total no. of slots on work plane	20	20
Unattended operation stand alone	≥4 hours	≥4 hours
Unattended operation fully integrated	24 hours	24 hours
Throughput no. of compound wells per hours	1500	1000

*on the individual holes

Dimensions	
Width	128 cm
Depth	85 cm
Height	187 - 206 cm (open)
Weight	600 kg

Requirements	
Power supply	100-240 V 50-60 Hz Max. 10A
Pressure	5 - 8 Bar
Vacuum	900 - 620 mBar
Network	100 BaseT (100 Mbit)*

*Qube uses gigabit switch internally which data transfer can benefit from



- Up to 30,000 compounds tested per 24 hours
- 384 simultaneous recordings in whole-cell patch clamp configuration
- 384 amplifiers for high-quality patch clamp recordings
- 384 pipettes with exchangeable tips
- QChip 384:
  - Gigaseal technology
  - Single- or multi-hole
  - Micro-fluidic channels for optimized liquid exchange
  - Integrated electrodes
  - SBS footprint for full automation configuration
- The Sophion developed software, ViewPoint, is used for setting up the plans to be executed on Qube. ViewPoint is very intuitive for new users and gives a clear overview of the data generation
- Sophion Analyzer user interface for easy setup, execution of experiments and analysis

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