

PIEZO1

SyncroPatch 384

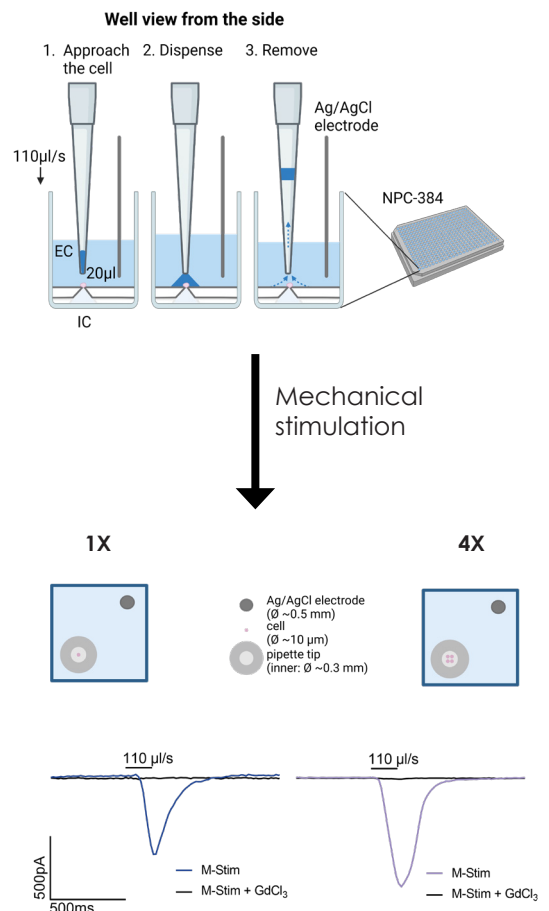
Investigating PIEZO1 using the SyncroPatch 384

PIEZO channels are mechanically activated cation channels, mediating various health and disease mechanisms such as red blood cell homeostasis, malarial resistance, vascular structure and function, and lymphoedema. The 2021 Nobel Prize for Physiology or Medicine was awarded in part for the discovery of ion channels responsible for touch, recognizing their crucial role in physiology and pathophysiology. A bottleneck in drug development targeting PIEZO channels has been the lack of patch clamp systems capable of applying mechanical stimulation in an automated, higher throughput manner.

Nanion's SyncroPatch 384 enables reliable mechanical and ligand activation, and pharmacology, of PIEZO1 channels in a high throughput automated patch clamp instrument.



Contact us today

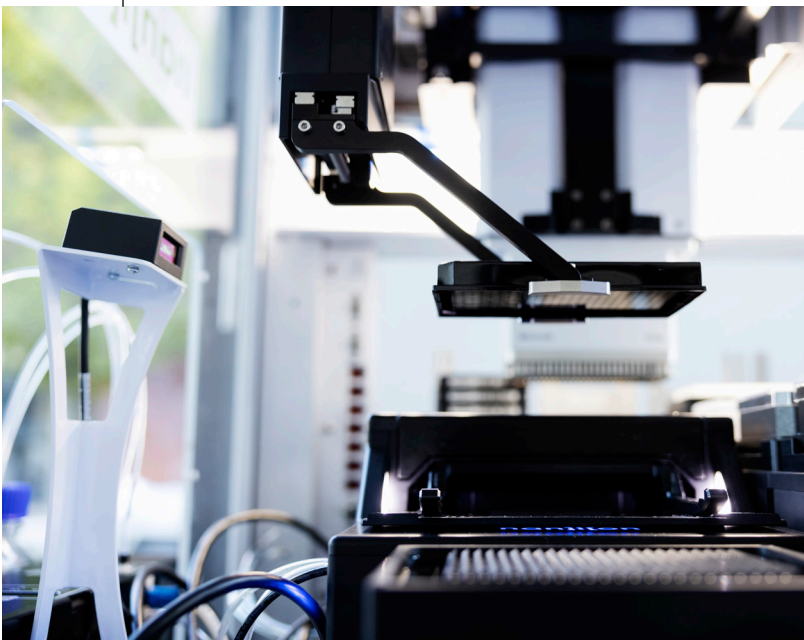


SyncroPatch 384

For all your electrophysiology needs

Ideal for mechanical stimulation experiments

- Range of solution application speed (up to 110 $\mu\text{l/s}$)
- Pipette positioned close to cell
- Mechanical stimulation combined with ligand application



Features

- 384 amplifier channels
- Flexible throughput -> 32 to 384 wells in parallel
- Voltage- & current clamp
- External & internal solution exchange
- Heating and cooling
- Single- & multi-hole chips, produced in-house
- Series resistance compensation
- Automated IV analysis
- Optical Stimulation (optional)

Applications

- Voltage-, ligand- and heat-activated ion channels
- Mechanical stimulation
- Action potential pharmacology
- Whole cell and perforated patch
- Cell lines, primary cells and stem cells
- Validated for CiPA
- Easy & customizable analysis tools
- User and Advanced modes of operation