



Nanopatch™

High performance single ion channel recordings at a low cost

Introducing the **Nanopatch™**, a novel planar lipid bilayer (PLB) platform with unprecedented noise performance (0.22 pArms at 10 kHz with capacitive feedback, 0.30 pArms with resistive feedback) and a convenient method to quickly form robust and reproducible bilayers. A complete system with low noise amplifier, bundled temperature and pressure controls, LabVIEW based software and a true desktop footprint that does not require vibration isolation tables or Faraday cages.

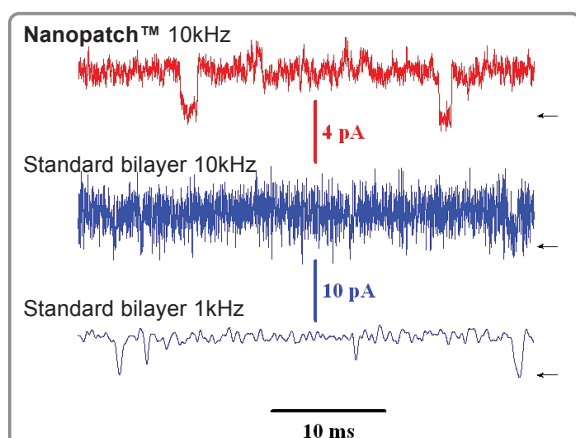
The **Nanopatch™** reduces the cost and complexity of single ion channel recordings while providing state-of-the-art noise and bandwidth performance.

Planar lipid bilayer simplicity with patch clamp performance

- Low cost, low noise, high bandwidth
- Integrated amplifier
- Integrated temperature and pressure control
- Reproducible, robust bilayers
- Small footprint



Better resolution at higher bandwidths



*The **Nanopatch™** allows measurement of small conductances at 10 times higher bandwidth.*

Performance of the **Nanopatch™** versus a standard PLB system during cardiac Ryanodine receptor channel (RyR2) recordings. Open channels can be easily observed at 10 kHz on the **Nanopatch™** system. At the same bandwidth, the standard PLB system is not able to resolve any activity. Filtering down to 1 kHz on the standard system reveals some activity, but the filtering strongly affects the shape of the channel openings.

Demonstrated with RyR2, alpha hemolysin, gramicidin, and Trpm8 channels. We are currently looking for early access collaborators and customers for beta-validation of additional channels.

For more information:

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