

The SyncroPatch® 96.  
Get more throughput.



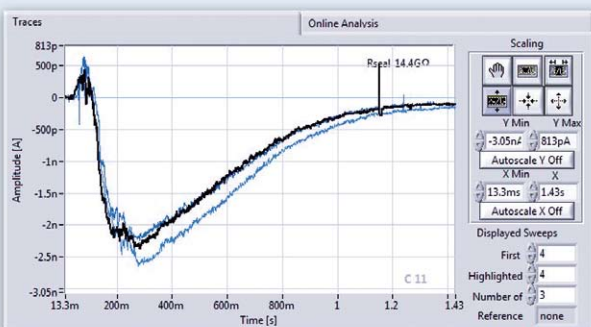
The SyncroPatch® 96 NPC®-96

**nanjion**

# SyncroPatch® 96 Get more throughput

- 96 cells in parallel
- Premium data quality
- Compatible with frozen cell stocks
- Fast solution exchange
- Ligand- and voltage-gated channels
- Customized patch substrates
- Powerful and intuitive software
- Efficient data handling

## Stable P2X<sub>2/3</sub> responses



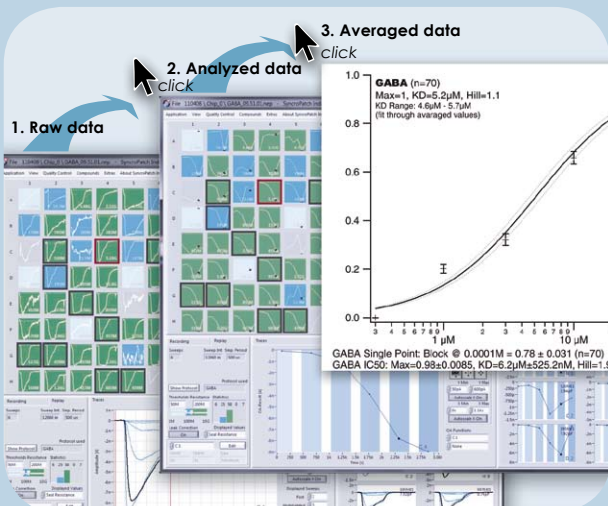
P2X<sub>2/3</sub> receptors in a 1321 N1 cell were repeatedly activated by 10  $\mu$ M ATP (intermittent wash). Data by courtesy of Evotec AG

## High data quality means reliable data

The SyncroPatch® 96 supports true giga-seal recordings with low access resistance in whole cell recording mode. Stable seals and precise compound application grant minimal false-positives and negatives in the drug screening process.

## The SyncroPatch® 96 allows for:

- High quality, low noise recordings
- Reproducible compound additions
- Full dose response curves from individual cells – also for ligand gated ion channels



## From raw data to EC<sub>50</sub> values in just two mouse clicks

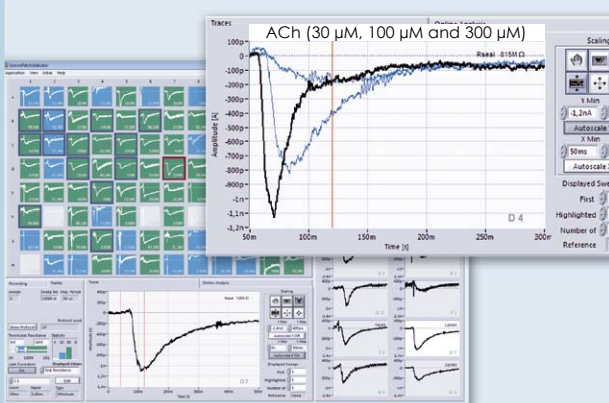
PatchControl 96 is a powerful graphical user interface for set-up, running and analysis of screens.

## PatchControl 96 supports:

- Intuitive set-up, screening and data analysis
- Color coding of recording wells according to user defined success criteria ( $R_{WC}$ ,  $R_{\alpha}$ , current size etc.)
- Leak-subtraction, I/V-curves, pharmacology plots and more, can be obtained with a few mouse clicks
- Powerful data handling – raw data analysis with completely new settings possible

chip resistance:	3 M $\Omega$
seal resistance:	> 1 G $\Omega$
series resistance:	< 10 M $\Omega$
average whole cell stability:	~ 30 minutes
perfusion time constant:	< 50 ms
successful whole-cell recordings:	60 – 80%
throughput (12 hr operation):	6800 data points / day
voltage-gated channels:	Nav1.5, Nav1.7, Cav3.2, hERG, Kv1.3, Kv1.5 <i>etc.</i>
ligand-gated channels:	GABA <sub>A</sub> , nAChR $\alpha$ 7, nAChR $\alpha$ 3 $\beta$ 4, P2X <sub>2/3</sub> , TRPV1, TRPA1 <i>etc.</i>

### Dose response curves on nicotinic $\alpha$ 7 receptors



Cells stably expressing human nAChR $\alpha$ 7 were kindly provided by Galantus Pharma GmbH.

### Cost-efficient ion channel screening – save time and money

Efficient screens and data analysis save time. Time is money, and together with inexpensive hardware, software and consumables, the SyncroPatch<sup>®</sup> 96 offers very competitive pricing per data point. Other SyncroPatch<sup>®</sup> 96 cost-efficiency boosters are:

- Full dose response curves from individual cells increase the data output per recording well
- High cell line compatibility – consistent success rates without lengthy assay development
- Short priming and cycle times

Ask us how the SyncroPatch<sup>®</sup> 96 can revolutionize your ion channel screening today!

## Technical Specifications

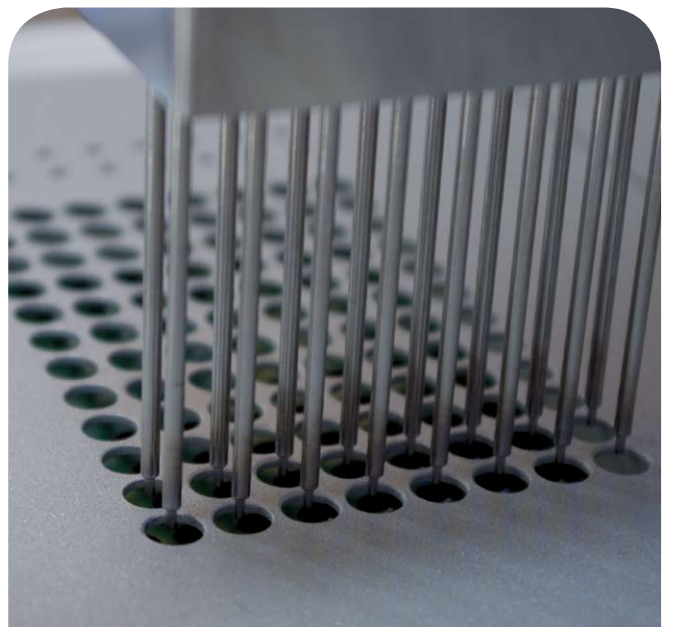
### The SyncroPatch<sup>®</sup> 96 system includes:

- Turn-key platform with built-in amplifiers
- PatchControl 96 software
- SyncroPatch Data Analysis Package
- On-site installation support

### Size and weight:

Size (l x w x h): 125 x 80 x 132 cm

Weight: 120 kg



*"To drive the next evolution in channel research, we sought an ultra high- throughput, high data fidelity, automation-adaptable EP platform to enable multi-parallel panel-based efficacy and selectivity screening. Using the SyncroPatch® 96 from Nanion, we have developed the Ion FlexScreen platform, which revolutionizes hit-to-lead progression via massively parallel multi-channel panels. Through synergies with laboratory automation, we have enabled order-of-magnitude reductions in FTE resource on a per-program basis, and held costs flat."*

*Adam Hendricson, Ph.D., Applied Biotechnology & Lead Evaluation,  
Bristol-Myers Squibb, Wallingford, CT, USA*

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