

# I-V Analysis SyncroPatch 384

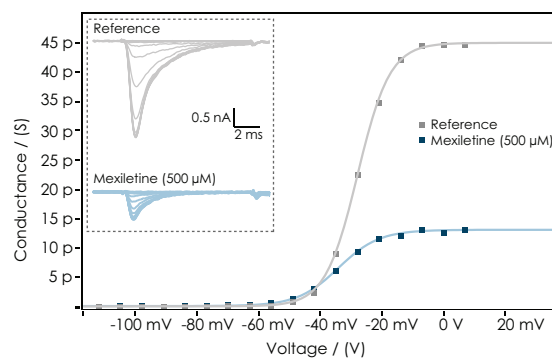
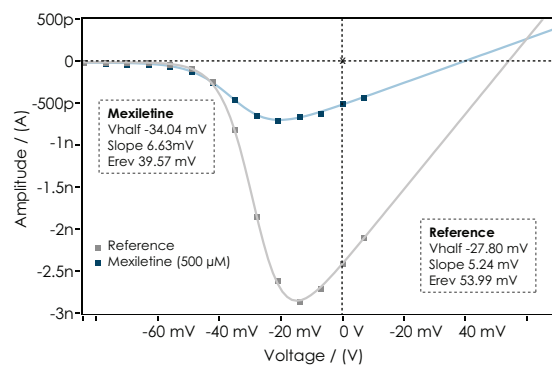


## Advanced I-V analysis with DataControl 384

Analysis of the current-voltage (I-V) relationship represents a key step in the biophysical characterization of ion channels. I-V analysis reveals fundamental characteristics of ionic conductance, including the range of voltage required for channel activation, the reversal potential ( $E_{rev}$ ), the maximum conductance ( $G_{max}$ ), and the half-maximal activation voltage ( $V_{half}$ ). Further analyses typically involve constructing G-V curves, to gain insights into the voltage-dependence of inactivation.

Nanion's **SyncroPatch 384** provides the ultimate solution for advanced online I-V analysis. Using our DataControl 384 software, you can easily generate and accurately fit I-V and G-V curves pre- and post-compound. All the parameters, such as  $G_{max}$ ,  $V_{half}$ , slope, and  $E_{rev}$  are calculated automatically at the click of a button.

### Effect of Mexilitine on $Na_v1.5$



Contact us today

# SyncroPatch 384 with DataControl 384

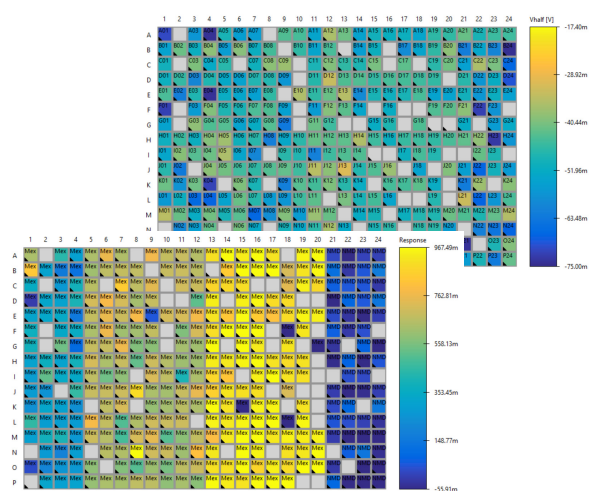
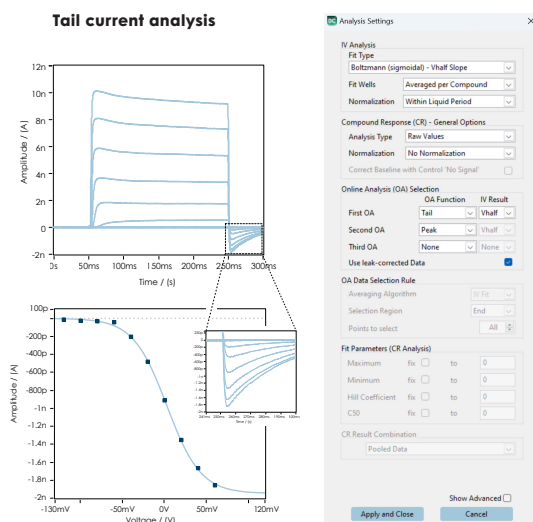
## Analyze all your data with a few clicks

### Analyze compound effects on I-V

- Individual and averaged I-V curves: 3 modes of automated I-V fitting (individual, averaged and pooled) for maximal flexibility.
- Precise fit with automated quality control.
- Generate accurate activation and inactivation curves pre- and post-compound.
- Automatically measure effects of state-dependent compounds on  $V_{half}$  and  $G_{max}$ .

### Get the most out of your data

- Uncover hidden insights and identify effects or variations by normalizing and overlaying I-V curves.
- Use IV data as QC parameter for automated filtering.
- Generate heatmaps for quick overview of I-V derived parameters, including  $G_{max}$ ,  $V_{half}$  and slope.



### Easy data analysis and export

- Use ready-made or user-defined templates to streamline your data analysis.
- Export all data generated as part of I-V analyses in a user-defined export format.
- Automatically generate pdf-reports.

