



Dynaflow[®] Resolve System

*State-of-the-art ion channel
screening platform*

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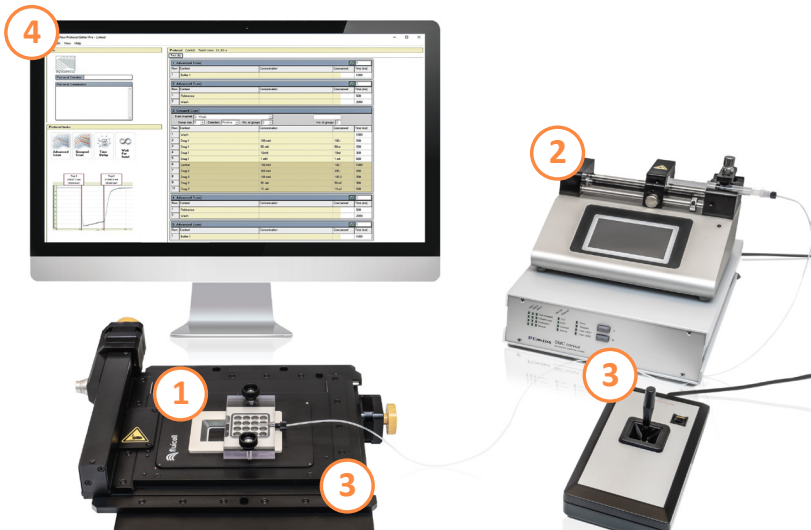
State-of-the-art ion channel screening platform

The Dynaflow[®] Resolve System is a versatile add-on to your existing patch-clamp set-up that offers **solution exchange of up to 16 different test compounds** at unsurpassed speed, control, and flexibility.

The system allows for the recording of **any ion channel current in any patch-clamp recording configuration**. All types of cells can be used together with any kind of compound.

Benefits

- HANDLES COMPLEX PERFUSION PROTOCOLS
- LOW COMPOUND CONSUMPTION
- OPTIMIZED FOR SAFETY PHARMACOLOGY
- GIGASEAL RECORDINGS
- FAST SOLUTION EXCHANGE



1- REUSABLE CHIP

The chip has 16 microchannels and is composed of a glass microfluidic chip and a plastic interface, which forms the wells and the recording chamber. The chip is reusable and developed to reduce the risk for non-specific binding of “sticky compounds”.

2- SYRINGE PUMP

An easy setup syringe pump especially designed to drive the flow in the Dynaflo® Resolve chip.

3- MOTORIZED SCAN STAGE WITH ADVANCED STAGE CONTROLLER

A motorized scan stage is used to automatically translate chip movements. It includes a precision stage controller, a joystick and is controlled by the Dynaflo Commander software.

4- SOFTWARE

The software Dynaflo Commander assures control and pre-programming of the movements of the scanning stage. It synchronizes precision solution exchange with real time tagging of the acquired data, through the use of industry standard TTL communication. The Windows-based software allows a full control of experiments, including scan protocols and exposure times.

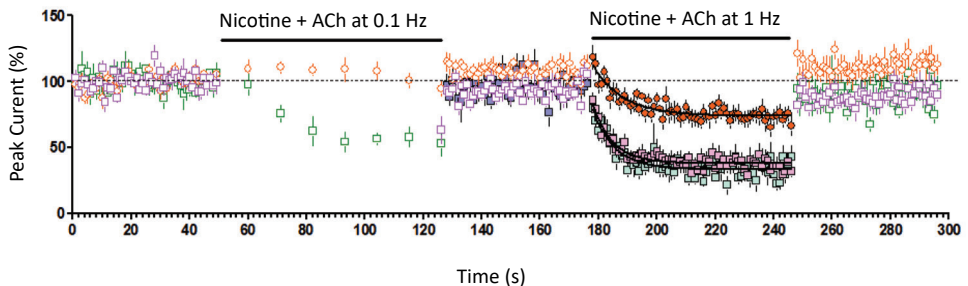
APPLICATIONS

The Dynaflo Resolve System has an extremely broad application base with regard to both cell type and choice of ion channel.

Cell types validated with the system include typical mammalian cell lines such as CHO and HEK, in addition to larger cells (e.g. myocytes) and cells with extensions (e.g. neurons).

Ion channels studied with the system range from very fast activating channels like nACh and AMPA to ion channels requiring longer exposure times, such as hER channels.

- **SECONDARY ION CHANNEL DRUG TESTING**
- **DETAILED ANALYSIS OF ION CHANNEL KINETICS**
- **PATCH CLAMP-BASED SYNAPTIC TRANSMISSION ASSAYS**

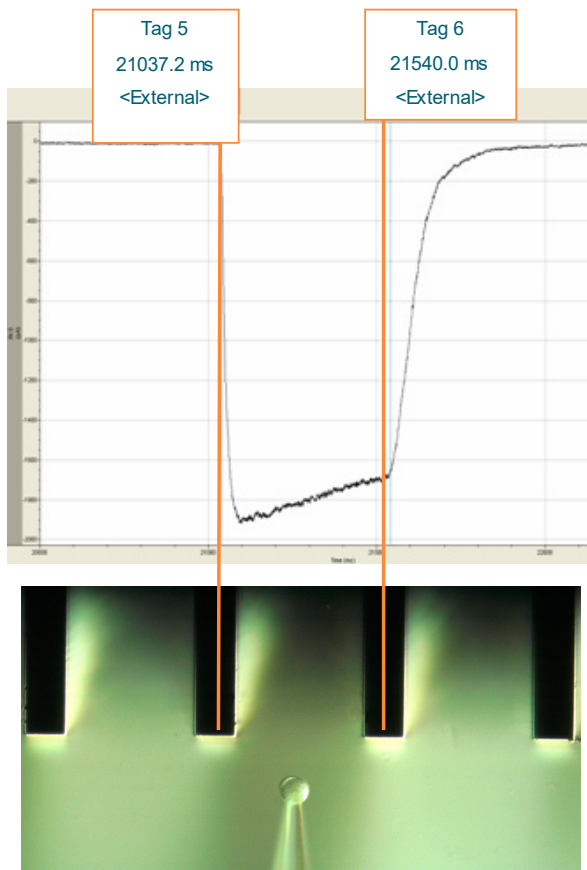


Use-dependent inhibition of $\alpha 7$ responses in the presence of 1 and 2 μM nicotine. ACh (130 μM , 4 ms duration) was applied at a frequency of 1 Hz. After baseline recording (1 μM - orange or 2 μM - green or violet) was continuously applied and the cells were stimulated and later at 1 Hz frequency. Data courtesy of Targacept, Winston Salem, NC, USA.

More information and applications at www.fluicell.com

Precision cell positioning and solution exchange

- EXCELLENT REPRODUCIBILITY
- HIGH INFORMATION CONTENT
- EXPERIMENTAL CONTROL



A patch-clamped cell positioned in front of one of the microchannels. Positioning tags are sent directly to the patch recording software.



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