

nAChR $\alpha 7$ SyncroPatch 384

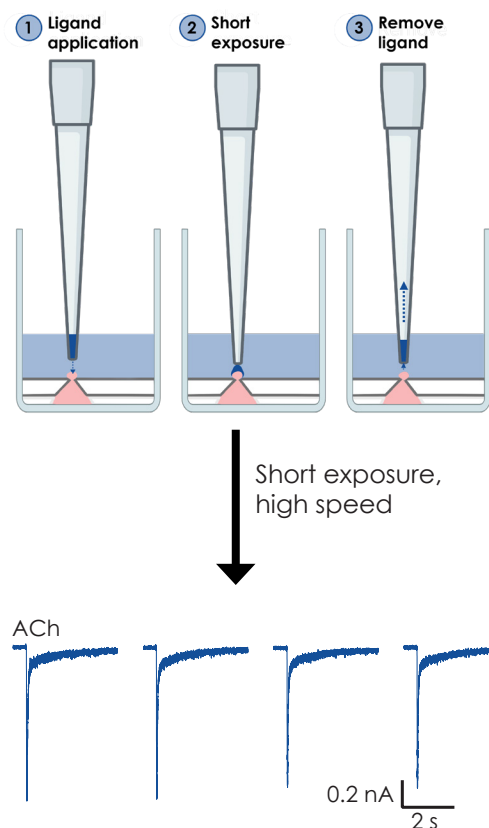
Fast activation of nAChR $\alpha 7$ on the SyncroPatch 384

The nicotinic acetylcholine receptor (nAChR) is a member of the ligand-gated ion channel superfamily which includes GABA_A, 5HT₃, NMDA and glycine receptors. The $\alpha 7$ subunit forms homomeric receptors which play a putative role in cognition and could be a potential therapeutic target in cognitive disorders such as Alzheimer's Disease or schizophrenia. nAChR $\alpha 7$ are activated by acetylcholine and nicotine and desensitize very fast. In order to record them reliably, exposure time must be kept to a minimum, and washout of the ligand must be complete.

Nanon's SyncroPatch 384 with specialized NPC-384 F/M STIM chips enable reliable and reproducible recordings of nAChR $\alpha 7$ due to the high speed of application, low exposure time, complete washout of the ligand and precise alignment of the patch clamp aperture with the pipette.



Contact us today



HEK nAChR $\alpha 7$ /ric3
cell line from:

euofins

DiscoverX

nanjion

SyncroPatch 384

When speed matters

Adjustable parameters

- Fully adjustable speed of application controlled by the user
- Application speeds up to 110 $\mu\text{l/s}$
- Flexible exposure time through adjustable parameters: ligand volume, application speed and wait time
- Exposure times as low as 27 ms possible



Research and drug discovery

- Record fast desensitizing ligand-gated ion channels
- Multiple applications of ligand and compounds on each cell
- Low compound volume
- High compound storage flexibility
- Cell lines, primary cells and stem cells

Specialized chips

- NPC-384 F/M STIM chips with precise aperture positioning
- Ideal for fast ligand-gated ion channels and mechanical activation
- Thin borosilicate glass for low capacitance, low adsorption and high success rates
- Made in-house