

# Patchliner



Study location: Nanion Technologies,  
Munich, Germany  
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## Human $\alpha_7$ nicotinic Acetylcholine Receptor on the Patchliner

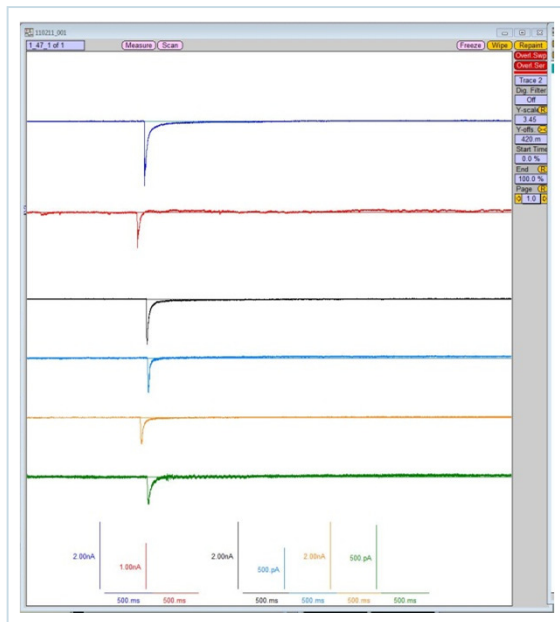
*A stable cell line was kindly supplied by Galantos Pharma GmbH, Germany*



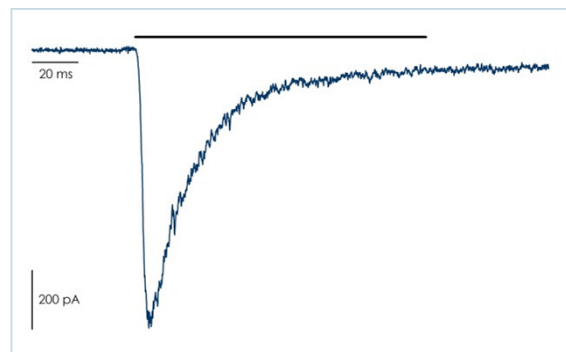
### Results

The human  $\alpha_7$  nicotinic acetylcholine receptor expressing cells (stable) from Galantos Pharma GmbH were tested on the Patchliner.

Repeated stimulations with 100  $\mu$ M nicotine were tested to validate the system. Figure 1 demonstrates the success rates. In the run shown in Figure 1, six out of eight cells could be measured. All six cells showed characteristic  $\alpha_7$  currents (Figure 1). Average peak currents for the shown experiment were  $0.9 \pm 0.2$  nA ( $n = 6$ ) which is consistent with manual patch clamp results reported by Galantos Pharma.



**Figure 1:** PatchMaster screenshot. All cells show characteristic  $\alpha_7$  currents.



**Figure 2:** Close up of an exposure to 100  $\mu$ M nicotine. The bar above the current trace indicates the period of nicotine application. The current peak was reached within 10 ms. - The shown response is the first response from Figure 3.



**Figure 3:** Repeated stimulations by 100  $\mu$ M nicotine gives reproducible current responses. Shown in Figure 3 is an example of a cell that was exposed to 100  $\mu$ M nicotine nine times. Time intervals between applications were at least 2 minutes.