

Nanon NPC-certified cells. The optimum choice for your assays.

PrecisION™ hGABA_A α1/β3/γ2-HEK

Cells from Merck Millipore, optimized for Nanion Patch Clamp Devices (NPC) Port-a-Patch, Patchliner and SyncroPatch96.



- Assay optimized for Nanion APCs
- Giga Ohm seals
- High success rates
- Stable current responses
- Cell line and assay support
- Optimized patch clamp solutions

NPC - certified cells

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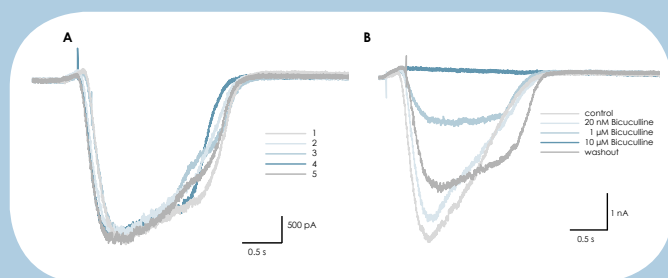
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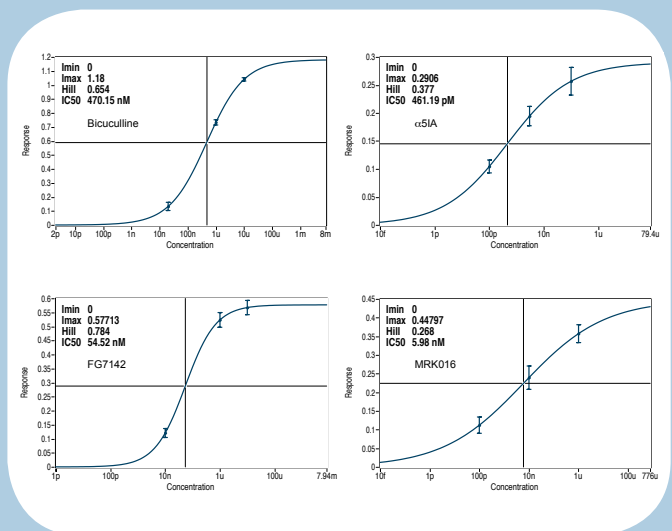


Nanion NPC-certified hGABA_A α1/β3/γ2-HEK cells

The GABA receptor family is the most important class of inhibitory ion channels involved in synaptic transmission, and are selectively permeable to monovalent anions. They constitute an important therapeutic target for drugs affecting anxiety, sleep and muscle relaxation.



Raw data traces of GABA_A α1β3γ2 expressing cells exposed to 3 μM GABA consecutively (A) or increasing Bicuculline concentrations, co-applied with the EC₂₀ GABA concentration, and a subsequent washout (B). Exposure time to the ligand was 2 s. Recordings were done on the SyncroPatch96.



Pharmacology on GABA_A α1β3γ2 as recorded on the SyncroPatch96. Mean CRCs for Bicuculline, IC₅₀ = 470 nM (n = 14); for α5IA IC₅₀ = 461.19 pM (n = 9), maximum block was 29% at 100 nM; for FG7142 IC₅₀ = 54.52 nM (n = 15), maximum block was 58% at 10 μM; for MRK016 maximum current inhibition was 44.8% at 1 μM, IC₅₀ = 5.98 nM (n = 11).

hGABA_A α1/β3/γ2-HEK from Merck Millipore

Passage stability:	> 15
Current amplitude / cell at EC₂₀ GABA concentration:	0.8 ± 0.1 nA (n=16)
IC₅₀s:	Bicuc., IC ₅₀ = 470 nM (n=14); α5IA IC ₅₀ = 461.19 pM (n=9); FG7142 IC ₅₀ = 54.5 nM (n=15); MRK016 IC ₅₀ = 5.98 nM (n=11)
Seal > 500 MOhm:	64 %
Seal > 1 GOhm:	42 %
C_{slow}:	18.8 ± 1.6 pF (n=32)
R_s:	8.6 ± 1.5 (n=32)
Cell stability after harvesting:	~ 4 hrs
Average whole cell stability:	~ 70 min
Successful whole cell recordings:	70 - 90 %
Application directly from frozen stock:	yes

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