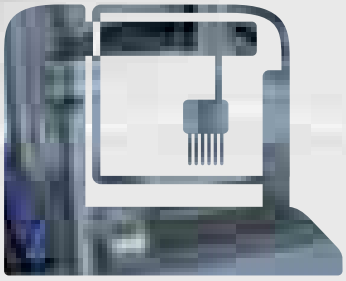
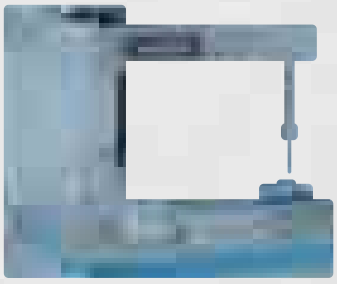
Nanion NPC-certified cells.
The optimum choice for your assays.

PrecisION™ hERG-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

nan]i[on

Nanion Europe
info@nanion.de
phone +49 89 218997972
www.nanion.de

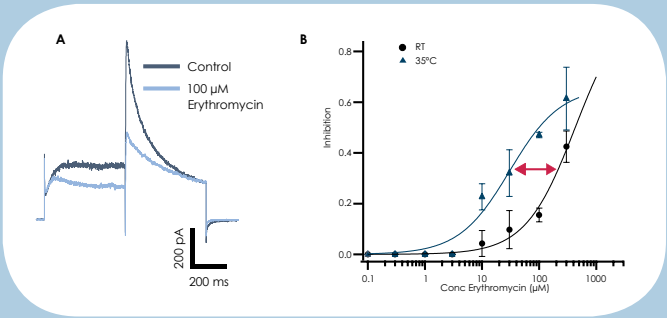
Nanion USA
info@naniontech.com
phone 1-888-9-NANION
www.naniontech.com

Nanion China
info@nanion.cn
phone +86 1082176386
www.nanion.cn

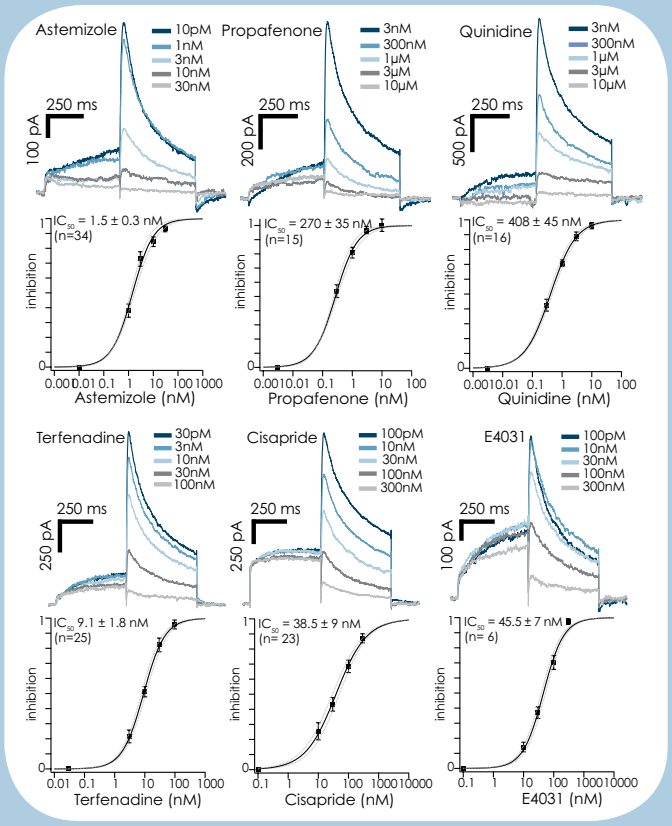
Nanion NPC-certified hERG-HEK cells

The hERG gene (KCNH2) encodes a K^+ ion channel responsible for the repolarizing IKr current in the cardiac action potential. Given the importance of this channel in maintaining cardiac function, it has become an important target in compound safety screening.

Compounds can display different properties or different potencies at physiological temperature (35°C) vs. room temperature (RT). Therefore, it is of advantage to be able to study this channel electrophysiologically at elevated temperature as shown below.



A hERG inhibition of Erythromycin at 35°C as recorded in hERG-HEK cells. **B** CRCs for erythromycin at room temperature and at 35°C. Erythromycin is approximately 10-fold more potent at 35°C compared with RT. Recordings were done on a Patchliner.



Raw data traces and CRCs as obtained from hERG expressing hERG-HEK cells.

hERG-HEK from Merck Millipore

Passage stability:	> 30
Current amplitude / cell:	919 ± 57 pA (n=54)
IC_{50}s:	Astemizole, IC_{50}=1.5 nM (n=34); Propafenone IC_{50}=270 nM (n=15); Quinidine IC_{50}=408 nM (n=16); Terfenadine IC_{50}=9.1 nM (n=25); Cisapride IC_{50}=38.5 nM (n=23); E4031 IC_{50}=45.5 nM (n=6); Flunarizine, IC_{50} =163.7 ± 19 nM (n=3) Erythromycin IC_{50}@ RT= 427.5 µM (n=12), Erythromycin IC_{50}@ 35°C = 30.7 µM (n=18);
Seal resistance:	1.3 ± 0.7 GΩ
C_{Slow}:	7.0 ± 1 pF (n=16)
R_s:	7.5 ± 1 (n=16)
Cell stability after harvesting:	~ 4 hrs
Average whole cell stability:	~ 45 min
Successful whole cell recordings:	70 - 90 %
Application directly from frozen stock:	yes

NPC-certified cells. The optimum choice.