Product Datasheet

Product Name	PrecisION™ hERG (CHO-K1) Ready-to-Assay Frozen Cells
Product Number	CYL3038RTA

Product Information

GenBank Accession Number	U04270
Mycoplasma Detection	Negative
Storage	Short term (<24 h): Store at -80°C Long term (>24 h): Store in vapor phase of liquid nitrogen.

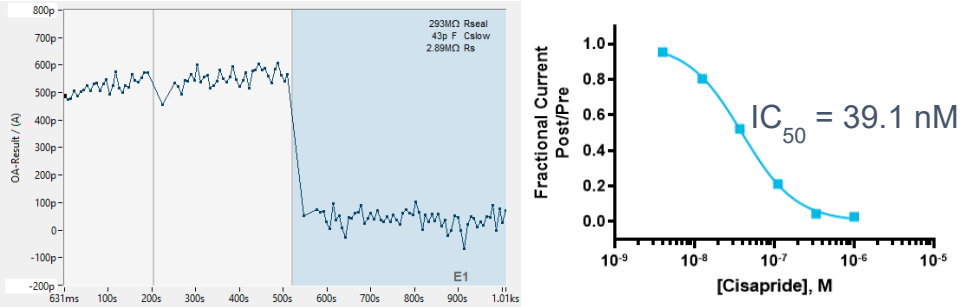
Assay Information

Lot Number	Please see vial
Cell Density	6.0 x 10^6 cells/mL
Vial Size	1.0 mL

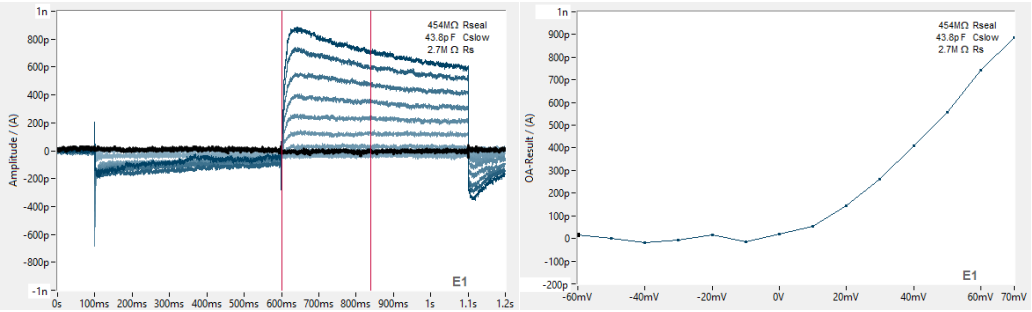
Functional Data

Cell Passage	Not Applicable (Frozen Ready-To-Assay)
Instrument	SyncroPatch 384i

hERG-CHO RTA lot 24C1908 tested on automated patch clamp by reference Cisapride according to Ion Channel Product's standard operating procedure. Left panel below: Peak currents measured at -40 mV over time (left) prior to (grey-shaded) and after the addition of 1 uM Cisapride (blue-shaded). Right panel below: Dose response curve for cisapride.



hERG-CHO RTA raw data currents (left) and current-voltage (I/V) relationship (right) for lot 24C1908 tested on automated patch clamp.



Instructions for Use: CYL3038RTA PrecisION™ Ready-to-Assay Cells

Product Name	PrecisION™ hERG (CHO-K1) Ready-to-Assay Frozen Cells
Product Numbers	CYL3038RTA-2 CYL3038RTA-10 CYL3038RTA-25

Kit Contents

Cell Vials	6.0 x 10^6 cells /1ml vial
Thaw Media	For the initial suspension of thawed cells

Storage Conditions

Vial Storage	Store in vapor phase of liquid nitrogen
Thaw Solution Storage	Store at 4°C

Assay Information

Cells were optimized for 4-hole population patch recording using a SyncroPatch 384i system. Cells were run at a density ranging from 0.3 - 0.4 x 10^6 cells/mL. Similar results should be obtained on all automated electrophysiology platforms, however, some adjustments to final cell density in patch clamp recording solution may be required. We do not recommend running these cells using 1-hole patch clamp substrates as sub-optimal results may be obtained.

Assay Setup

1. Immediately upon receipt place cell vials in the vapor phase of a liquid nitrogen tank.

2. Prior to thawing cells, allow the thaw media and patch clamp recording solution to come to room temperature.

3. Thaw one or more cryovials of cells as needed for the format of your automated electrophysiology platform. One vial should be sufficient for 48-well platforms while two vials are recommended for 384-well platforms.

4. Place the cryovials containing the cells in a 37°C water bath briefly, until only small ice crystals remain, and the cell pellet is almost completely thawed. The thawing time typically ranges from 1.5 to 2.5 minutes. DO NOT vortex freshly thawed cells.


Do not leave the frozen cell vials unattended in the water bath. Prolonged thawing at 37ºC may result in cell death.

5. Prepare a 15 mL centrifuge tube by adding 5 mL of thaw media at room temperature. Gently transfer the thawed cells into the 15 mL tube.

6. Remove 1 mL of thaw media (and cells) from the 15 mL tube, add to the cryovial for maximum recovery of the Ready-to-Assay cells. Remove the thaw media from the cryovial and return to the 15 mL tube.

7. Centrifuge for 4 minutes at 80 xg and very carefully remove the supernatant while avoiding removing cells from the loosely packed pellet.

8. Resuspend the cells in the appropriate amount of patch clamp recording solution to obtain a density and volume of the cell suspension for your instrumentation. Let cells recover for 15 to 30 minutes before beginning the experimental run.

9. **Optional:** An extra spin may be performed in 5 mls of the patch clamp recording solution after step #7 if issues with low recording seals are encountered. This extra step should remove small amounts of serum that may be affecting cells sealing with the patch clamp substrate.