

## PrecisION<sup>®</sup> hKir2.1 Recombinant Stable Cell Line

**Catalog Number** CYL3032

**Lot Number**

See Vial

**Contents** 2 Vials, 2 x 10<sup>6</sup> to 4 x 10<sup>6</sup> in 1 mL

### Background Information

Kir2.1 has a fundamental role in controlling the resting potential of cardiac myocytes and shaping the cardiac action potential. It is therefore likely that drugs affecting this channel will have an effect on cardiac excitability. Mutations in the KCNJ2 gene that encodes Kir2.1, reduce expression of the channel and cause a form of long QT syndrome (Andersen Syndrome, LQT7) that predisposes individuals to ventricular arrhythmias. Recognition that the dysfunction of this channel can lead to long QT has led to its inclusion into the cardiac panel.

### Product Information

**Description** Recombinant HEK 293 cell line expressing the human Kir2.1 (inwardly-rectifying voltage-gated potassium channel, subfamily J, member 2 (KCNJ2))

**Family** Potassium, Inward Rectifier

**Target** Kir2.1

	Target Protein	Accession Number
1	Kir2.1	NM_00891
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A

**Species** Human

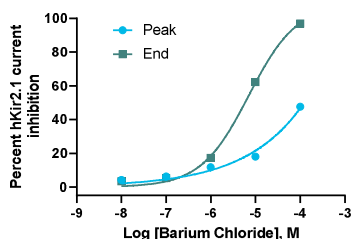
**Host Cell Type** HEK 293

**Application** Electrophysiology assay (conventional and automated patch clamp platforms)

**Storage** Vials are to be stored in vapor phase of liquid nitrogen

### Functional Performance

HEK293 cells expressing hKir2.1 were characterized in terms of their pharmacological and biophysical properties using whole-cell patch clamp techniques.



**Electrophysiology Method** QPatch

**Reference Agonist**

**Reference Antagonist** Barium Chloride

**Antagonist IC<sub>50</sub> (μM)** 7.10

### Passage Stability

This cell line has been confirmed to be stable through at least 12 passages with no significant drop in assay window or change in pharmacology.

### Mycoplasma Testing

This lot was tested and found to be free of mycoplasma contamination. Data available upon request.

### Notes

Additional functional (pharmacological and electrophysiological) validation on multiple platforms is available upon request.

### Additional Ligand Information

**Control Compound** Barium Chloride

**Vendor Name :** Sigma-Aldrich

**Vendor Catalog No.** 44964

### Additional Background Information

N/A

Ordering: +1.510.979.1415 option 4 or e-mail [CustomerServiceDRX@eurofins.com](mailto:CustomerServiceDRX@eurofins.com)

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