Life Sciences Reporting Summary

Nature Research wishes to improve the reproducibility of the work we publish. This form is published with all life science papers and is intended to promote consistency and transparency in reporting. All life sciences submissions use this form; while some list items might not apply to an individual manuscript, all fields must be completed for clarity.

For further information on the points included in this form, see Reporting Life Sciences Research. For further information on Nature Research policies, including our data availability policy, see Authors & Referees and the Editorial Policy Checklist.

1. **Sample size**
   - Describe how sample size was determined.
   - Sample size have been determined in order to provide a statistically significant sample cohort with numbers to ensure reproducibility.

2. **Data exclusions**
   - Describe any data exclusions.
   - No data was excluded.

3. **Replication**
   - Describe whether the experimental findings were reliably reproduced.
   - Yes: Sample size have been determined in order to provide a statistically significant sample cohort with numbers and 3-5 individual repeats to ensure reproducibility with each cell line and experimental condition. Electrophysiology recordings were performed on different days on independent cell cultures.

4. **Randomization**
   - Describe how samples/organisms/participants were allocated into experimental groups.
   - N/A

5. **Blinding**
   - Describe whether the investigators were blinded to group allocation during data collection and/or analysis.
   - N/A

6. **Statistical parameters**
   - For all figures and tables that use statistical methods, confirm that the following items are present in relevant figure legends (or the Methods section if additional space is needed).

<table>
<thead>
<tr>
<th>n/a</th>
<th>Confirmed</th>
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<tbody>
<tr>
<td>☒</td>
<td>The exact sample size (n) for each experimental group/condition, given as a discrete number and unit of measurement (animals, litters, cultures, etc.)</td>
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<td>A description of how samples were collected, noting whether measurements were taken from distinct samples or whether the same sample was measured repeatedly.</td>
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<td>A statement indicating how many times each experiment was replicated</td>
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<td>☒</td>
<td>The statistical test(s) used and whether they are one- or two-sided (note: only common tests should be described solely by name; more complex techniques should be described in the Methods section)</td>
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<td>A description of any assumptions or corrections, such as an adjustment for multiple comparisons</td>
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<td>The test results (e.g. p values) given as exact values whenever possible and with confidence intervals noted</td>
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<td>A summary of the descriptive statistics, including central tendency (e.g. median, mean) and variation (e.g. standard deviation, interquartile range)</td>
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<td>Clearly defined error bars</td>
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</table>

See the web collection on statistics for biologists for further resources and guidance.
7. Software

Describe the software used to analyze the data in this study. Origin2015 Pro, ImageJ and Clampfit (Molecular Device)

For all studies, we encourage code deposition in a community repository (e.g. GitHub). Authors must make computer code available to editors and reviewers upon request. The Nature Methods guidance for providing algorithms and software for publication may be useful for any submission.

8. Materials availability

Indicate whether there are restrictions on availability of unique materials or if these materials are only available for distribution by a for-profit company.

N/A

9. Antibodies

Describe the antibodies used and how they were validated for use in the system under study (i.e. assay and species).

N/A

10. Eukaryotic cell lines

a. State the source of each eukaryotic cell line used.

Cell lines were sourced from ATCC (NIH 3T3 CRL-1658, PC3 CRL-1435, CHO(-K1) CCL-61 and HEK293 cells CRL-1573 from ATCC)

b. Describe the method of cell line authentication used.

ATCC's STR protocol and report

c. Report whether the cell lines were tested for mycoplasma contamination.

Periodic test have been conducted on all cell lines as a routine laboratory protocol before each individual experiment.

d. If any of the cell lines used in the paper are listed in the database of commonly misidentified cell lines maintained by ICLAC, provide a scientific rationale for their use.

PC3 cell lines are identified as diluting cell lines for 3 other prostate cell lines BUT PC3 cell line itself in not listed as such.

11. Description of research animals

Provide details on animals and/or animal-derived materials used in the study.

N/A

12. Description of human research participants

Describe the covariate-relevant population characteristics of the human research participants.

N/A