| REAGENT or RESOURCE | SOURCE | IDENTIFIER |
|---------------------|--------|------------|
| **Antibodies**      |        |            |
| Mouse monoclonal anti-α1C | Antibodies Inc. | cat # 75257 |
| Rabbit anti-FP1 (α1C) | Davare et al., 2000 |    |
| Alexa Fluor 647-conjugated donkey anti-rabbit | Thermo Fisher | cat # A32795 |
| **Bacterial and virus strains** |        |            |
| PM-ICU3             | Dipilato et al, 2009; doi.org/10.1039/b823243a | N/A |
|                     | Reddy et al, 2022; doi.org/10.1016/j.isci.2021.103693 |    |
| **Chemicals**       |        |            |
| Laminin             | Life technology | cat # 23017015 |
| Elastase            | Worthington | cat # LS002292 |
| Trypsin inhibitor   | Sigma Aldrich | cat # T9003 |
| Collagenase Type H  | Sigma Aldrich | cat # C8051 |
| Collagenase Type F  | Sigma Aldrich | cat # C7926 |
| DTT                 | Sigma Aldrich | cat # D9163 |
| Papain              | Worthington | cat # LS003119 |
| Forskolin           | Sigma-Aldrich | cat # F6886 |
| Nifedipine          | Sigma-Aldrich | cat # N7634 |
| (-)-BayK-8644       | Sigma-Aldrich | cat # B112 |
| Amphotericin B      | Sigma-Aldrich | cat # A4888 |
| Glyoxal             | Sigma-Aldrich | cat # 128465 |
| Intercept Blocking Buffer | LI-COR | cat # 927-70001 |
| Duolink probe maker kit | Sigma-Aldrich | cat # DUO92009-10 |
| Duolink Antibody Diluent Solution | Sigma-Aldrich | cat # DUO82008 |
| Duolink mounting medium | Sigma-Aldrich | cat # DUO82040 |
| SEA BLOCK Blocking Buffer | Thermo Fisher | cat # 37527 |
| ONI Bcubed buffers A+B | ONI | N/A |
| fluo-4 AM           | Invitrogen | cat # F14201 |
| DMSO/Pluronic F-127 | Invitrogen | cat # P3000MP |
| DMEM-GlutaMAX       | Thermo Fisher | cat # 1056714 |
| NF530               | Santa Cruz | cat #202962-98-7 |
| rpcAMP              | Tocris | cat #1337 |
| **Experimental models: Organisms/strains** |        |            |
| Mouse: C57BL/6J     | The Jackson Laboratory | JAX 000664 |
| Mouse: S1928A       | Lemke et al., 2008 |    |
| Mouse: S1700A       | Fu et al., 2014 |    |
| **Software and algorithms** |        |            |
| Software               | Vendor                          | Website                                                                 |
|-----------------------|---------------------------------|-------------------------------------------------------------------------|
| Metafluor             | Molecular Devices               | https://www.moleculardevices.com/sites/default/files/en/assets/brochures/dd/img/metafluor-fluorescence-ratio-imaging-software.pdf |
| Graph Pad Prism V9.0  | GraphPad Software               | https://www.graphpad.com/                                               |
| ImageJ V2.1           | National Institute of Health    | https://imagej.nih.gov/j/; RRID:SCR_003070                               |
| pClamp10              | Molecular Devices               | https://www.moleculardevices.com/products/axon-patch-clamp-system/acquisition-and-analysis-software/pclamp-software-suite#gref |
| Matlab 2020           | MathWorks                       | https://www.mathworks.com/products/matlab.html                          |
| LSCI v4.0             | RWD Life Science                | https://www.rwdstco.com/product-item/laser-speckle-imaging-system/      |