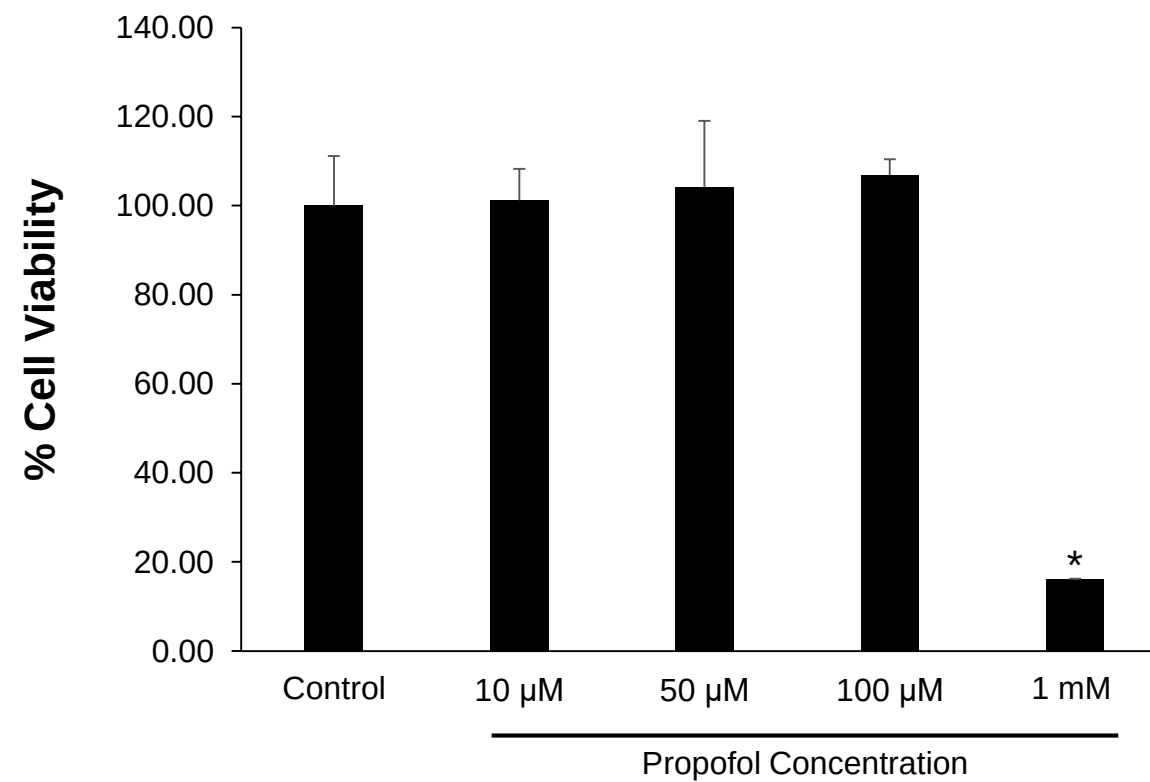
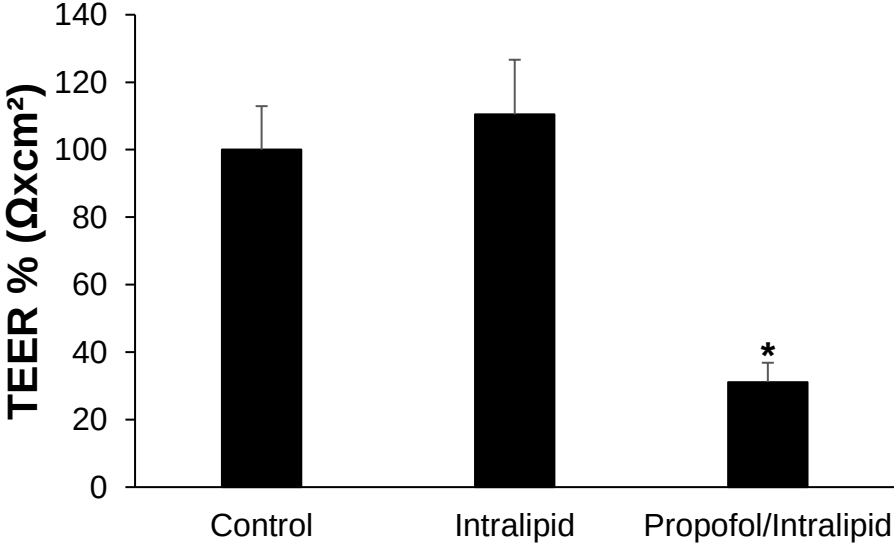


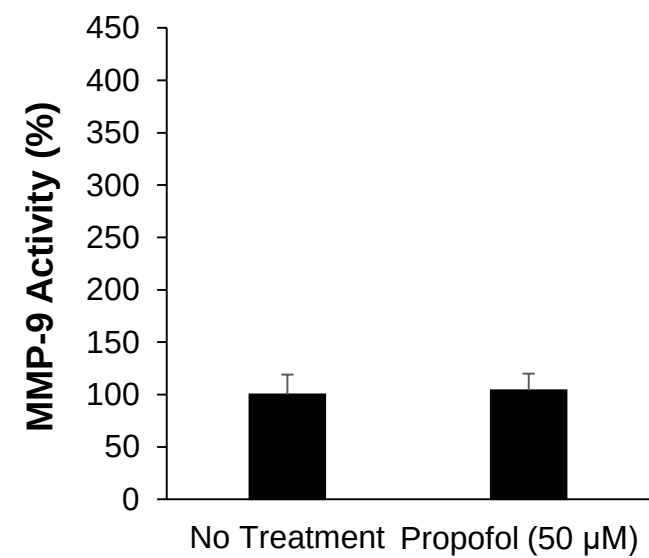
Supplementary Figure 1



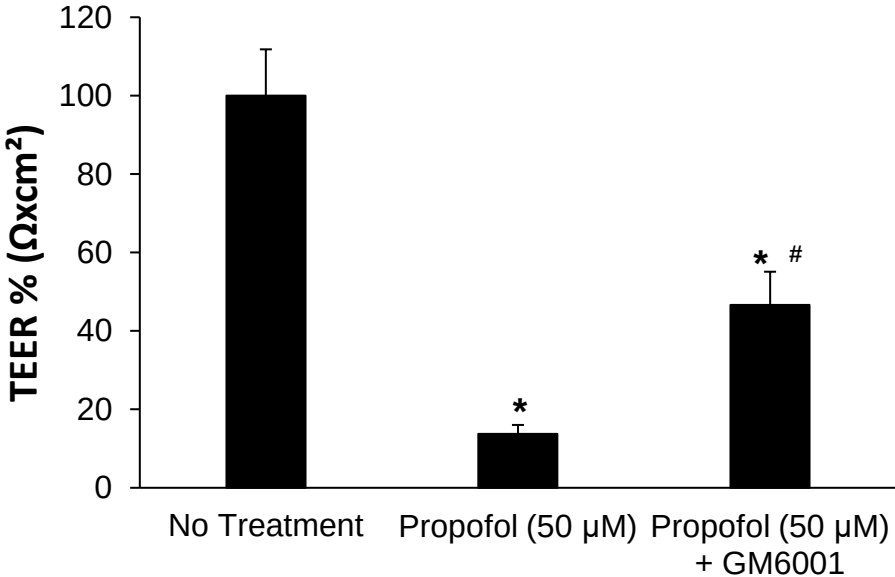
Supplementary Figure 2



Supplementary Figure 3



Supplementary Figure 4



**Supplementary Table 1**

| Primary Antibody | Vendor, clone or product #, Species                      | Fixative | Dilution | Block    | Secondary Antibody                                                                                 |
|------------------|----------------------------------------------------------|----------|----------|----------|----------------------------------------------------------------------------------------------------|
| Claudin-5        | ThermoFisher, clone 4C3C2, Mouse IgG1 monoclonal         | MeOH     | 1:50     | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| Occludin         | ThermoFisher, clone OC-3F10, Mouse IgG1 monoclonal       | MeOH     | 1:200    | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| ZO-1             | ThermoFisher, clone ZO1-1A12, Mouse IgG1 monoclonal      | MeOH     | 1:100    | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| GLUT-1           | ThermoFisher, clone SPM498, Mouse IgG2a-kappa monoclonal | MeOH     | 1:500    | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| PECAM-1          | ThermoFisher, clone CD31/PECAM-1, Rabbit polyclonal      | MeOH     | 1:25     | 10% PBSG | Goat anti-Rabbit IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11034) |
| P-gp             | ThermoFisher, clone C219, Mouse IgG2a monoclonal         | MeOH     | 1:25     | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| BCRP             | Millipore, clone 5D3, Mouse IgG2b-kappa monoclonal       | 4% PFA   | 1:50     | 10% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |
| MRP1             | Millipore, clone QCRL-1, Mouse IgG1 monoclonal           | MeOH     | 1:25     | 40% PBSG | Goat anti-Mouse IgG (H + L) Secondary Antibody, Alexa Fluor® 488 conjugate (ThermoFisher, A11001)  |

Supplementary Table 2

| Primary Antibody | Vendor, clone, and Species                                       | Dilution | Block                       | Secondary Antibody                                                                          | Dilution | Block                       | Band Size (M.W.) |
|------------------|------------------------------------------------------------------|----------|-----------------------------|---------------------------------------------------------------------------------------------|----------|-----------------------------|------------------|
| Claudin-5        | ThermoFisher, clone 4C3C2, Mouse IgG1 monoclonal                 | 1:250    | 5% non-fat dry milk in TBST | HRP-conjugated ThermoFisher, cat # PA1-74421, Goat IgG polyclonal (Mouse IgG1 paraproteins) | 1:2000   | 5% non-fat dry milk in TBST | 23 kDa           |
| Occludin         | ThermoFisher, clone OC-3F10, Mouse IgG1 monoclonal               | 1:500    | 5% non-fat dry milk in TBST | HRP-conjugated ThermoFisher, cat # PA1-74421, Goat IgG polyclonal (Mouse IgG1 paraproteins) | 1:2000   | 5% non-fat dry milk in TBST | 52 kDa           |
| ZO-1             | ThermoFisher, clone ZO1-1A12, Mouse IgG1 monoclonal              | 1:100    | 5% non-fat dry milk in TBST | HRP-conjugated ThermoFisher, cat # PA1-74421, Goat IgG polyclonal (Mouse IgG1 paraproteins) | 1:2000   | 5% non-fat dry milk in TBST | 225-230 kDa      |
| β-actin          | Cell Signaling Technology, clone 8H10D10, Mouse IgG2b monoclonal | 1:1000   | 5% non-fat dry milk in TBST | HRP-conjugated Cell Signaling Technology, cat # 7076, Horse IgG anti-mouse IgG              | 1:5000   | 5% non-fat dry milk in TBST | 45 kDa           |