## **Description of Additional Supplementary Files**

File name: Supplementary Movie 1

**Description:** Live-cell, confocal microscopy assessed lysosomal content (red, 10K TMR-labeled dextran) and plasma membrane permeability (green) in mSerpinb3a<sup>+/+</sup> FIECs treated with 100% DPBS.

## File name: Supplementary Movie 2

**Description:** Live-cell, confocal microscopy assessed lysosomal content (red, 10K TMR-labeled dextran) and plasma membrane permeability (green) in mSerpinb3a<sup>-/-</sup> FIECs treated with 100% DPBS.

## File name: Supplementary Movie 3

**Description:** Live-cell, confocal microscopy assessed lysosomal content (red, 10K TMR-labeled dextran) and plasma membrane permeability (green) in mSerpinb3a<sup>+/+</sup> FIECs treated with 25% DPBS.

## File name: Supplementary Movie 4

**Description:** Live-cell, confocal microscopy assessed lysosomal content (red, 10K TMR-labeled dextran) and plasma membrane permeability (green) in mSerpinb3a<sup>-/-</sup> FIECs treated with 25% DPBS