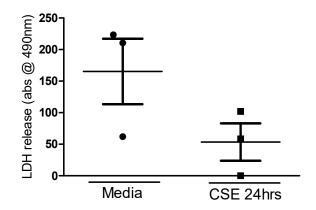
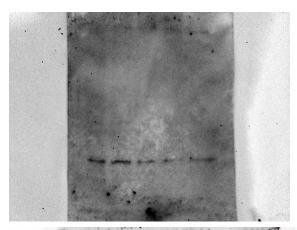
### Supplementary Figure 1.

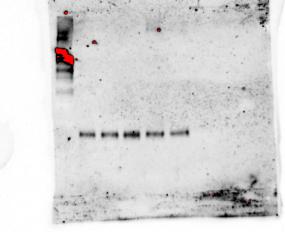


Supplementary Figure 1. The effect of cigarette smoke extract on endothelial cell viability. Human microvascular endothelial cells were treated with media alone or media supplemented with 5% cigarette smoke extract (CSE) for 24 hours. LDH levels were measured in the media at the 24 hour time point using a commercially available kit (Cayman Chemicals, Ann Arbor, MI).

# Supplementary Figure 2. Original images 4C

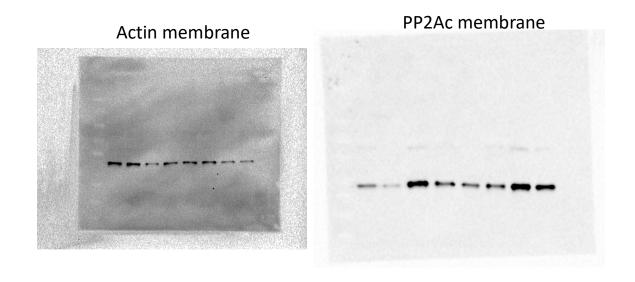


p-Threonine Occludin

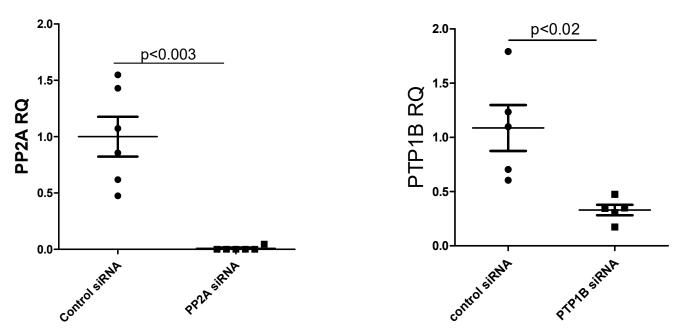


**Total Occludin** 

## Supplementary Figure 3. Original Images 1C

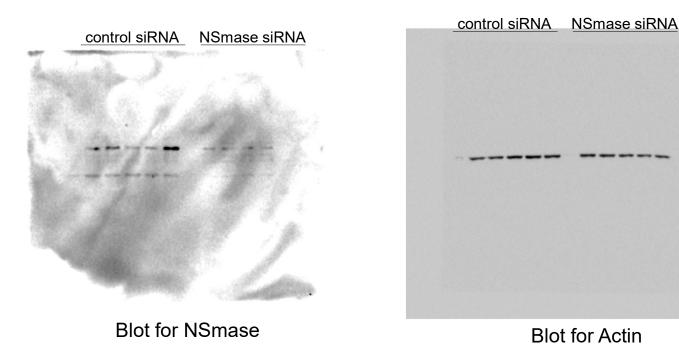


### Supplementary Figure 4.



Supplementary Figure 4. The effect of PP2A and PTP1B silencing. Human microvascular endothelial cells were treated with control siRNA, PP2A siRNA or PTP1B siRNA for 24 hours. RT-PCR using specific primers for  $PP2A_{\mathbb{C}}$  or PTP1B was conducted on mRNA isolated from the cells. Data is expressed on the y-axis as relative expression.

### Supplementary Figure 5



**Supplementary Figure 5. The effect of NSmase silencing.** Human microvascular endothelial cells were treated with control siRNA or NSmase siRNA for 24 hours. Immunoblots for Nsmase and Actin were conducted on the cell lysate protein.