



Supplementary Fig. 2. HRMECs morphology remains unchanged under normoxic and hypoxic conditions. Immunofluorescence staining of CD31 (red) and DAPI (blue) in HRMECs cultured under normoxia or subjected to 4 hours of hypoxia (Hyp 4h). Scale bars: 20 $\mu$ m. Merged images show intact endothelial morphology with no significant structural alterations following short-term hypoxic exposure. HRMEC, human retinal microvascular endothelial cell.