

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Time lapse imaging of control endothelial cells following experimental wounding. HUVEC monolayers treated with control siRNA were wounded with a scratch and imaged for 24 hours. Cells at the edge of the wound migrate to fill the available space. Movie is representative of 6 experimental repeats. Scale bar: 100 μm .

File Name: Supplementary Movie 2

Description: Time lapse imaging of *Ino80*-deficient endothelial cells following experimental wounding. HUVEC monolayers treated with *Ino80*-specific siRNA were wounded with a scratch and imaged for 24 hours. Migration of *Ino80*-depleted cells is delayed and less directional than controls while cell-cell contacts are also decreased. Movie is representative of 6 experimental repeats. Scale bar: 100 μm .