## **Supplementary materials**

Suppl. Figure 1



**Suppl. Fig. 1.** Identification of rat LMECs. A. Immunofluorescence staining of factor VIII-related antigen and binding of lectin BSI-B4 in rat LMECs (magnification  $200\times$ , panel left, middle). A typical cobblestone-like appearance of LMECs under the normal condition with phase-contrast microscopy (magnification  $100\times$ , panel right). B. Immunofluorescence staining of CD31 in rat LMECs. Red, CD31; blue, DAPI. Scale bar, 50 µm. C. Western blotting analysis of CD31 expression in rat LMECs. Rat pulmonary arterial smooth muscle cells (PASMCs) were used as a negative control and Human LMEC line (HLMECs) as a positive control.

## Suppl. Figure 2



**Suppl. Fig. 2.** siRNA-mediated knockdown of Rab5a in LMECs. The LMECs were transfected with Rab5a siRNA for 0, 24 and 48 h using the X-tremeGENE siRNA transfection reagent. Representative blots show Rab5a (upper panel) and GAPDH expression (middle panel). The bottom panel shows the quantitative data of Rab5a expression normalized to GAPDH. The data are expressed as the means  $\pm$  S.E. (n = 3). \* *p* < 0.05 versus normal group and ^*p* < 0.05 versus the 24 h group.



**Suppl. Fig. 3.** Effect of siRNA on the CI and cell growth of LMECs. (A) Effect of control siRNA on the CI of LMECs after LPS treatment. After siRNA transfection, the LMECs were pretreated with vehicle control, atenolol alone or ICI118,551 alone for 1 h; with ISO, atenolol plus ISO, or ICI118,551 plus ISO for 0.5 h, and then stimulated with LPS (10  $\mu$ g/ml) at time 1 h. The responses of the LMECs were monitored with the iCELLigence System. The data are expressed as the means  $\pm$  S.E. from three separate experiments. (B) The proliferation of LMECs was not altered by either control or Rab5a siRNA. The LMECs were transfected with control or Rab5a siRNA for 48 h and the real-time cell growth curves were obtained by using the iCELLigence System.