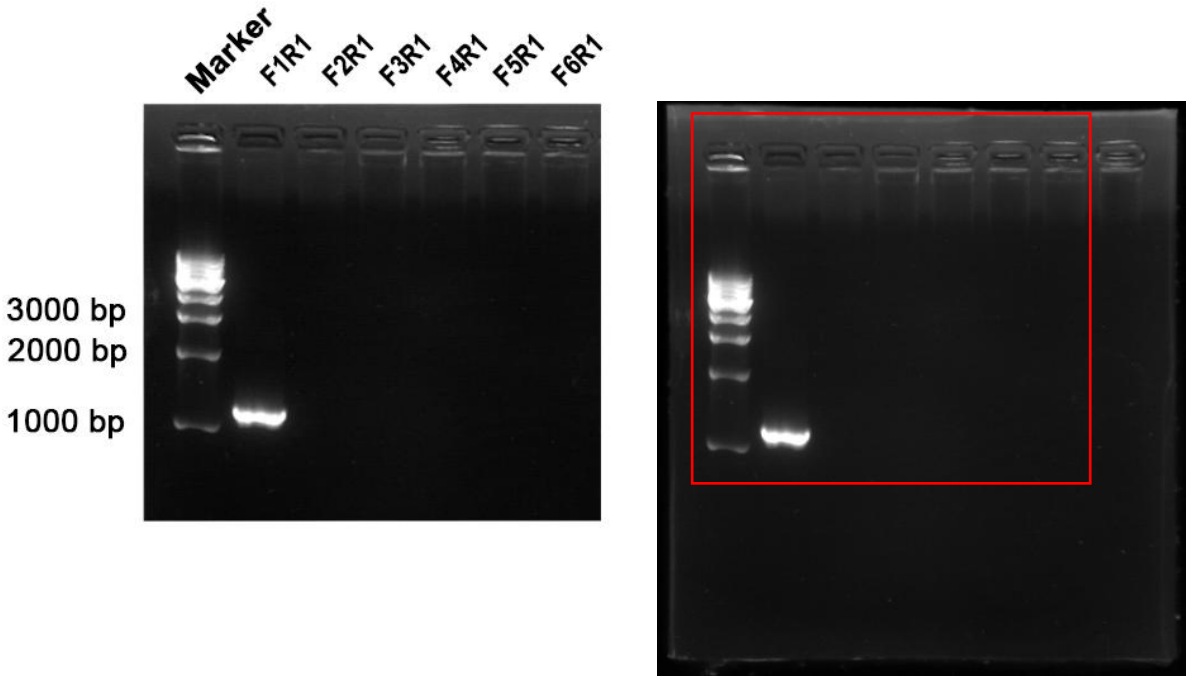

Fig. S1 Full-length, uncropped agarose gel for Fig. 2B.
Left panel: Cropped image shown in Fig. 2B.
Right panel: Full-length, uncropped image of the same agarose gel. The region corresponding to Fig. 2B is indicated by a **red box**. All the lanes and molecular weight markers are visible. This gel was used for qualitative assessment only.

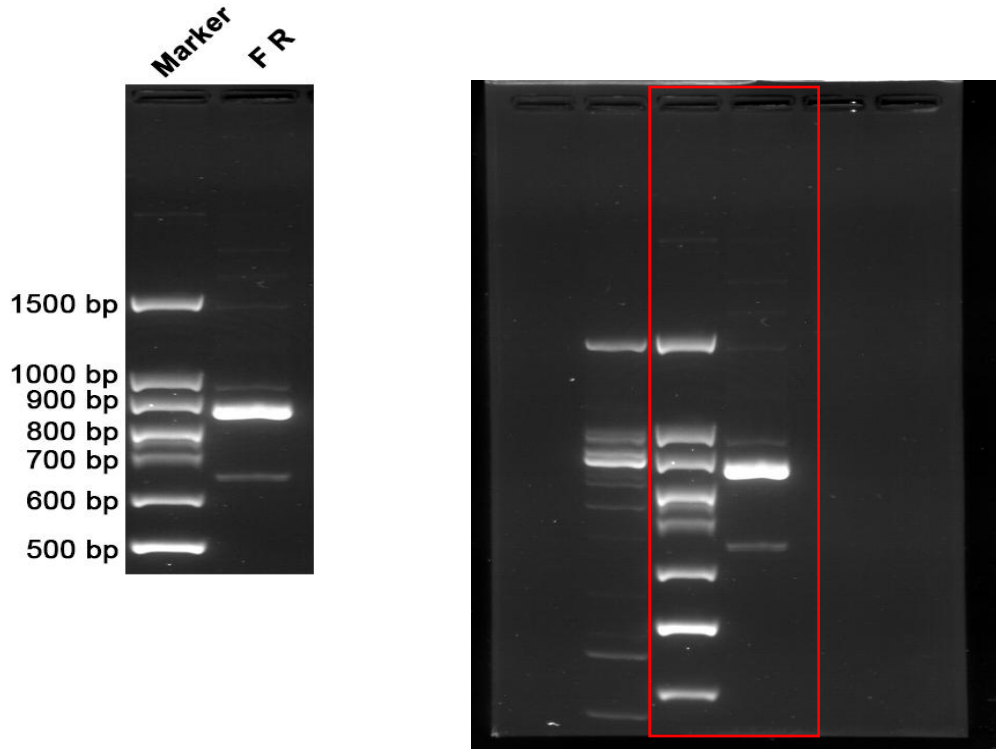

Fig. S2 Full-length, uncropped agarose gel for Fig. 2D.
Left panel: Cropped image shown in Fig. 2D.
Right panel: Full-length, uncropped image of the same agarose gel. The region corresponding to Fig. 2D is indicated by a **red box**. All the lanes and molecular weight markers are visible. This gel was used for qualitative assessment only.

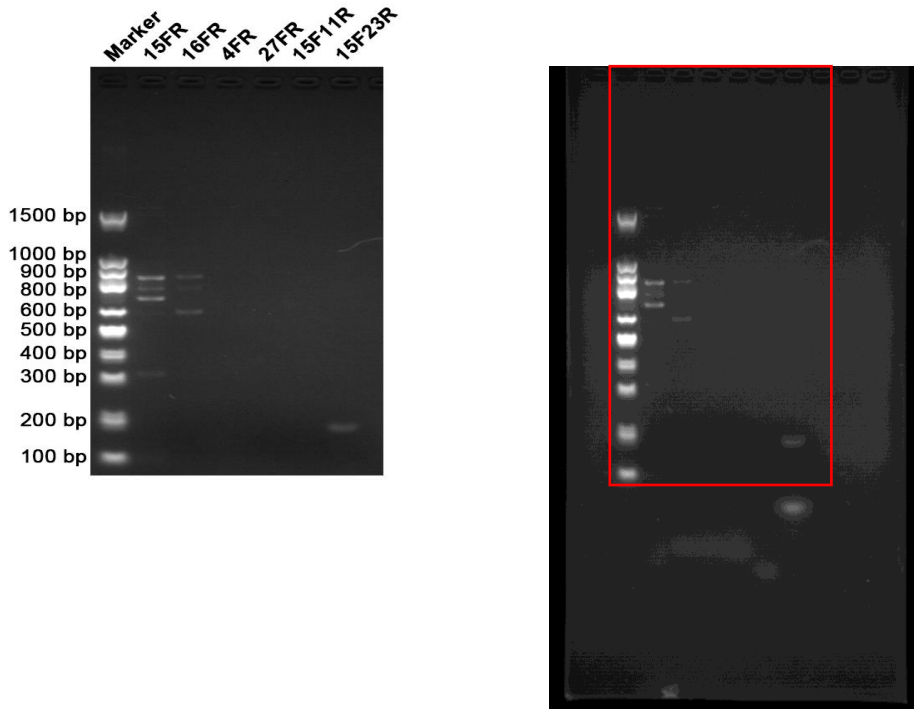

Fig. S3 Full-length, uncropped agarose gel for Fig. 2F.
Left panel: Cropped image shown in Fig. 2F.
Right panel: Full-length, uncropped image of the same agarose gel. The region corresponding to Fig. 2F is indicated by a **red box**. All the lanes and molecular weight markers are visible. This gel was used for qualitative assessment only.

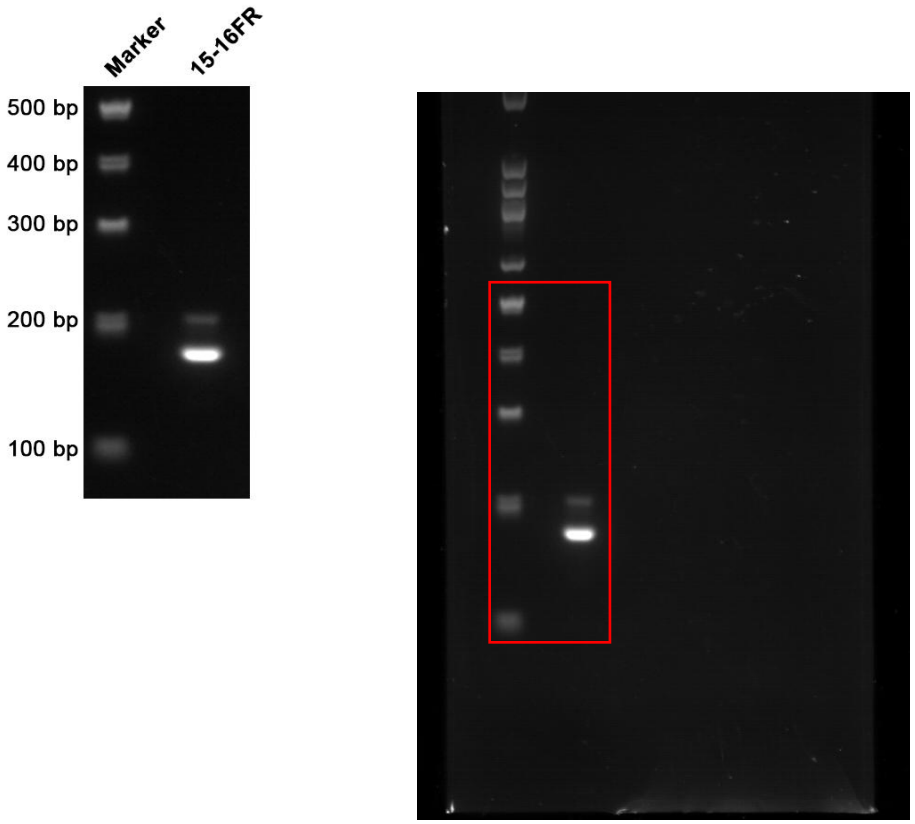

Fig. S4 Full-length, uncropped agarose gel for Fig. 2H.
Left panel: Cropped image shown in Fig. 2H.
Right panel: Full-length, uncropped image of the same agarose gel. The region corresponding to Fig. 2H is indicated by a **red box**. All the lanes and molecular weight markers are visible. This gel was used for qualitative assessment only.

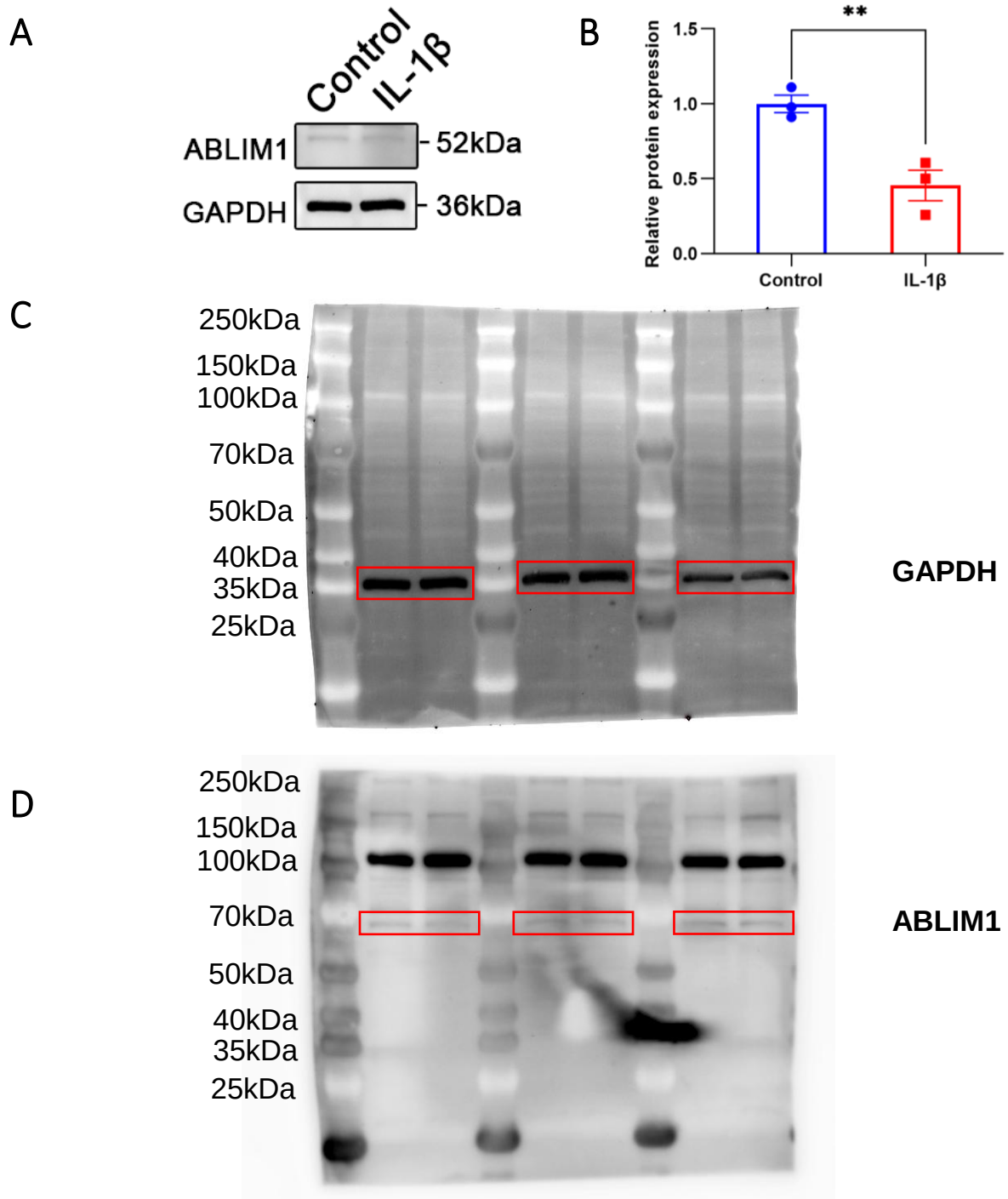

Fig. S5 Full-length uncropped Western blot images and quantitative analysis for ABLIM1 protein in IL-1β-treated hCMEC/D3 cells. (A) Representative immunoblot bands for ABLIM1 and GAPDH from the same membrane at 72 h post-treatment with IL-1β (200 ng/mL). The upper panel shows ABLIM1 (detected by HRP-ECL), and the lower panel shows GAPDH (detected by StarBright Blue 700 fluorescence). The panels are cropped from different regions of the same membrane, separated by white space, and vertically aligned to reflect identical sample loading; each ABLIM1 band (black boxes) corresponds to the GAPDH band (black boxes) directly below it. (B) Quantitative analysis of the bands shown in (A). Data are presented as the mean ± SEM; $^{**}p < 0.01$ vs. the control group; n = 3 per group. (C) Full-length image of GAPDH detection (fluorescent channel, StarBright Blue 700) from the same membrane. (D) Full-length image of ABLIM1 detection (ECL channel, HRP) from the same membrane. The red boxes indicate the regions corresponding to the black-boxed bands in (A). Molecular weight markers are visible on both sides and/or in the center of the gel. These data are provided for reference only and were not used as primary evidence for the conclusions of this study.

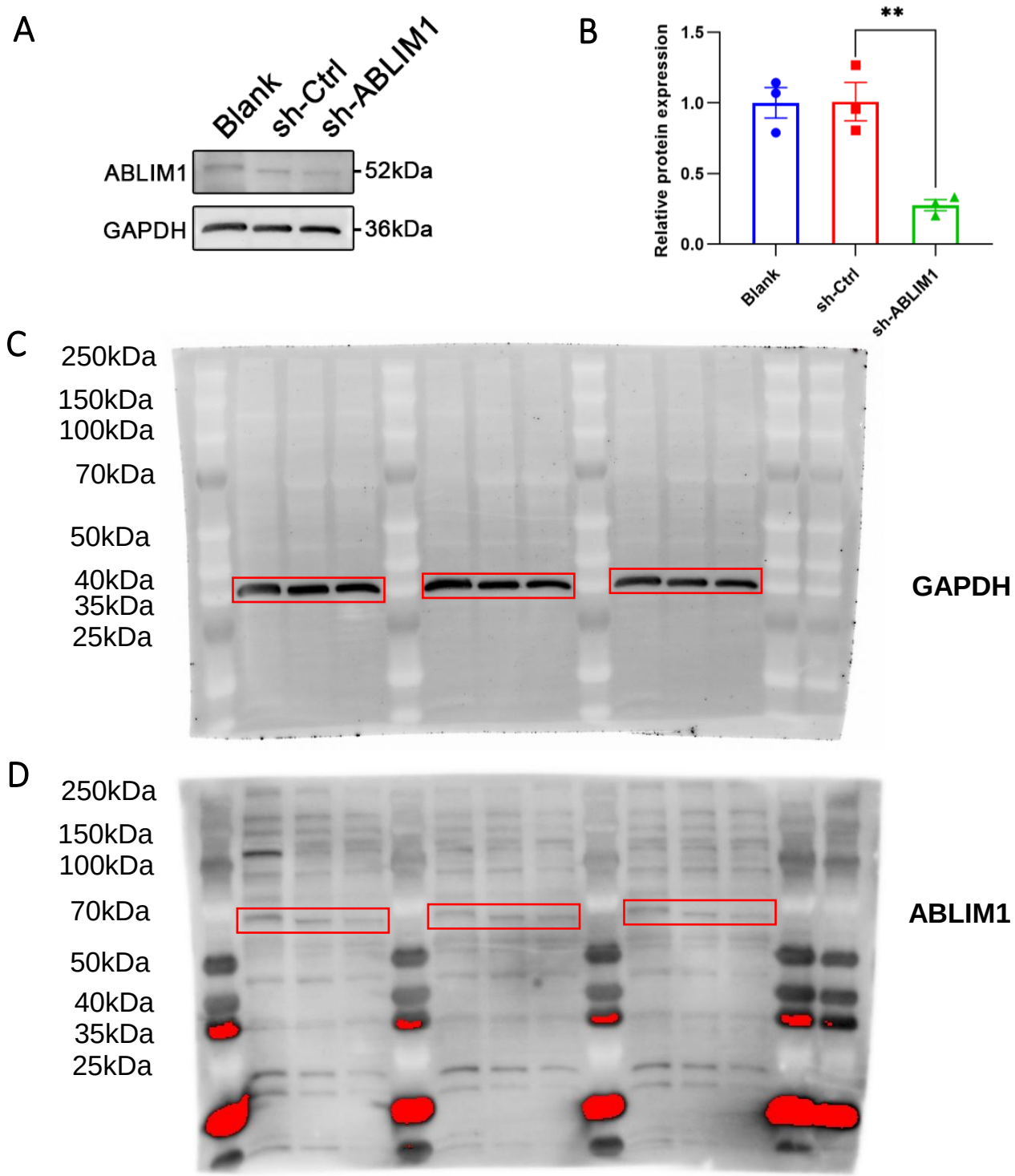

Fig. S6 Full-length uncropped Western blot images and quantitative analysis for ABLIM1 protein in ABLIM1 knockdown hCMEC/D3 cells. (A) Representative immunoblot bands for ABLIM1 and GAPDH from the same membrane at 96 h. The upper panel shows ABLIM1 (detected by HRP-ECL), and the lower panel shows GAPDH (detected by StarBright Blue 700 fluorescence). The panels are cropped from different regions of the same membrane, separated by white space, and vertically aligned to reflect identical sample loading; each ABLIM1 band (black boxes) corresponds to the GAPDH band (black boxes) directly below it. (B) Quantitative analysis of the bands shown in (A). Data are presented as the mean ± SEM; $^{**}p < 0.01$ vs. the sh-Ctrl group; n = 3 per group. (C) Full-length image of GAPDH detection (fluorescent channel, StarBright Blue 700) from the same membrane. (D) Full-length image of ABLIM1 detection (ECL channel, HRP) from the same membrane. The red boxes indicate the regions corresponding to the black-boxed bands in (A). Molecular weight markers are visible on both sides and/or in the center of the gel. These data are provided for reference only and were not used as primary evidence for the conclusions of this study.

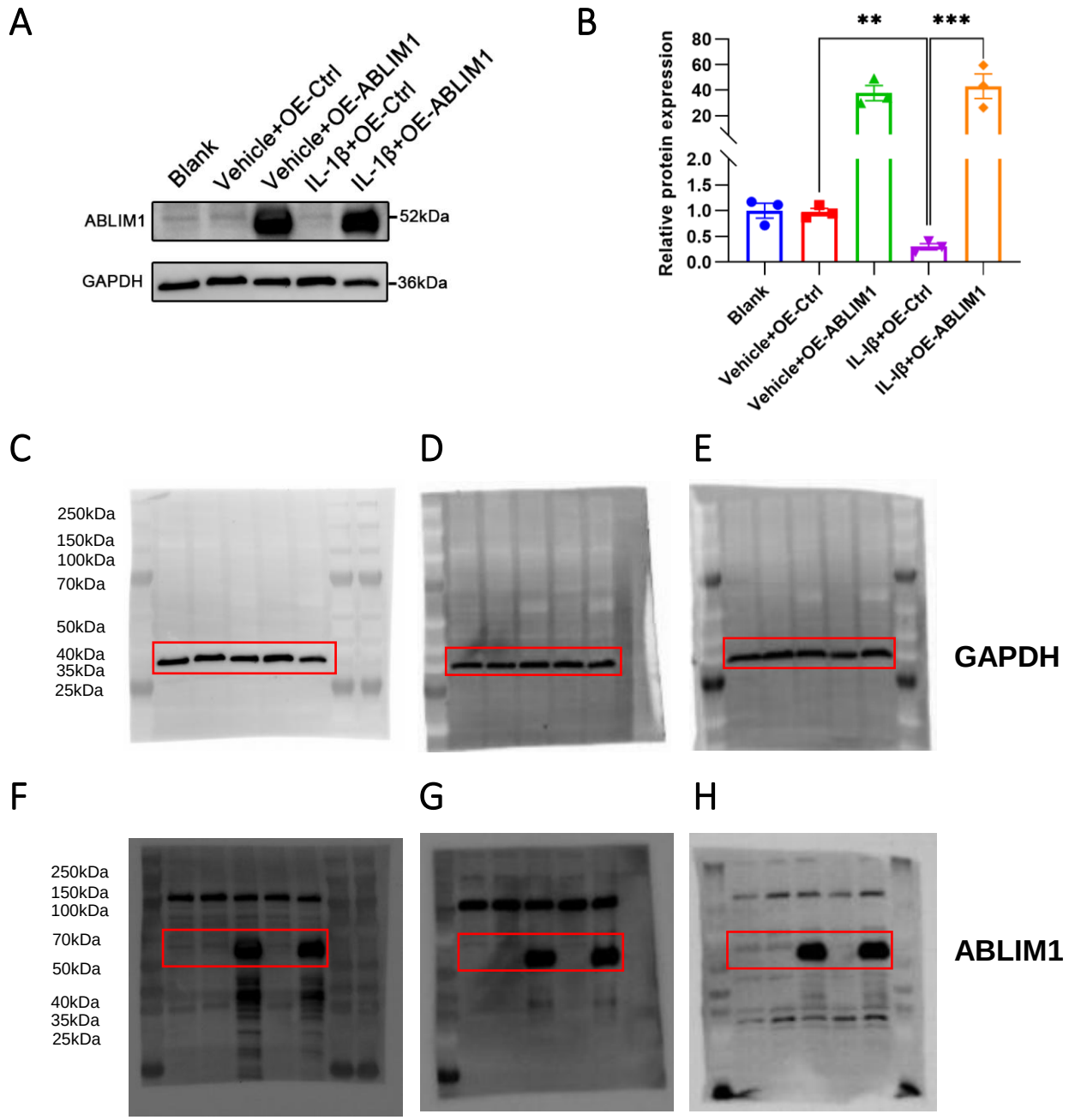

Fig. S7 Full-length uncropped Western blot images and quantitative analysis for ABLIM1 protein in ABLIM1 overexpression hCMEC/D3 cells. (A) Representative immunoblot bands for ABLIM1 and GAPDH from the same membrane at 72 h post-treatment with IL-1β (200 ng/mL). The upper panel shows ABLIM1 (detected by HRP-ECL), and the lower panel shows GAPDH (detected by StarBright Blue 700 fluorescence). The panels are cropped from different regions of the same membrane, separated by white space, and vertically aligned to reflect identical sample loading; each ABLIM1 band (black boxes) corresponds to the GAPDH band (black boxes) directly below it. (B) Quantitative analysis of the bands shown in (A). Data are presented as the mean ± SEM; $^{**}p < 0.01$, $^{***}p < 0.001$; n = 3 per group. (C–E) Full-length images of GAPDH detection (fluorescent channel, StarBright Blue 700) from three independent membranes. (F–H) Full-length images of ABLIM1 detection (ECL channel, HRP) from the same three membranes, respectively. The red boxes indicate the regions corresponding to the black-boxed bands in (A). Molecular weight markers are visible on both sides and/or in the center of the gel. These data are provided for reference only and were not used as primary evidence for the conclusions of this study.

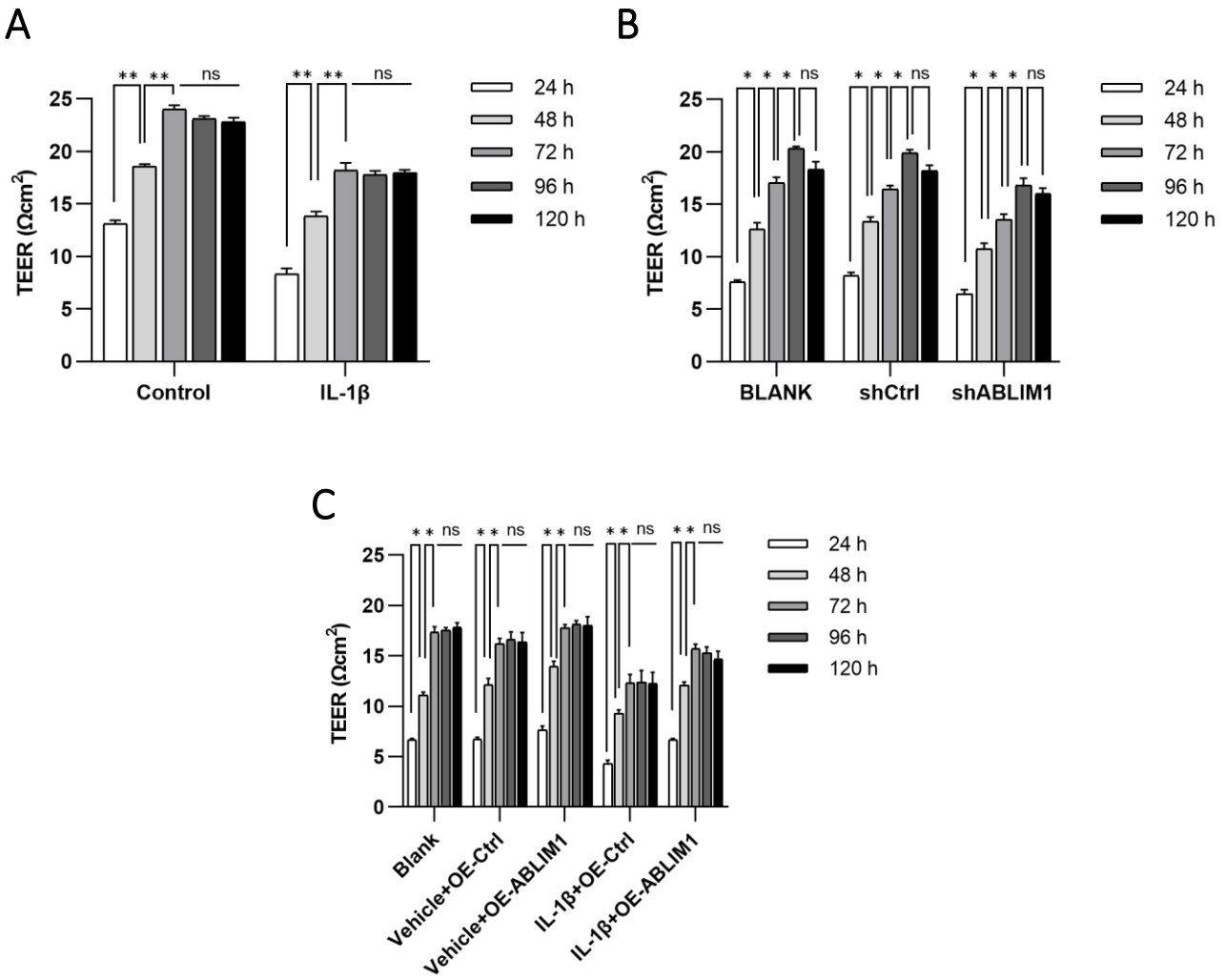

Fig. S8 Determination of the TEER plateau phase within each group. This figure shows the statistical determination of the plateau phase within each group for the TEER time-course curves presented in Fig. 3A (IL-1β treatment), Fig. 4C (ABLIM1 knockdown), and Fig. 5C (ABLIM1 overexpression). TEER was measured at the indicated time points (24, 48, 72, 96, and 120 h). For experiments involving IL-1β treatment, IL-1β (200 ng/mL) was added immediately after cell attachment. The plateau phase was determined by one-way ANOVA within each group across the time course and was defined as the time point at which TEER no longer showed a statistically significant increase. (A) For IL-1β treatment, both the control and IL-1β-treated groups reached the plateau at 72 h (n = 6 per group). (B) For ABLIM1 knockdown, both the sh-Ctrl and sh-ABLIM1 groups reached the plateau at 96 h (n = 6 per group). (C) For ABLIM1 overexpression, all groups reached the plateau at 72 h (n = 5 per group). Data are shown as mean ± SEM. *p < 0.05, ** p < 0.01: significant difference compared with the preceding time point within the same group; ns: not significant compared with the preceding time point, indicating that the preceding time point had already entered the plateau phase.