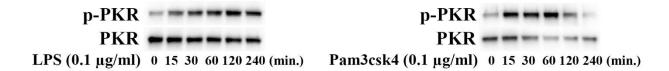


Matrilin-2

**Supplementary Figure 1. PKR is localized in the cytosol of human AVICs.** Human AVICs were treated with recombinant matrilin-2 for 30 mins to 1h. Representative images of immunofluorescence staining show PKR (red) in human AVICs. Alexa 488-tagged WGA (green) was applied to outline plasma membrane. DAPI (blue) was applied for nuclear counterstaining. Original magnification, ×40 objective.

p-PKR	Inner Menun	p-PKR	
PKR		PKR	
Matrilin-2 (2 µg/ml)	- + + -	Matrilin-2 (2 µg/ml)	- + + -
2AP (1 mM)	+ +	C13H8N4OS (0.5 µM)	+ +

Supplementary Figure 2. PKR inhibitors abolish matrilin-2-induced PKR phosphorylation in human AVICs. Human AVICs were treated with  $C_{13}H_8N_4OS$  or 2-AP for 1h or left untreated, followed by stimulation with matrilin-2 (2.0 µg/ml) for 1h.



## Supplementary Figure 3. Stimulation of TLR2 or TLR4 with a specific agonist induces PKR phosphorylation. Human AVICs were treated with TLR2 agonist Pam3csk4 or TLR4 agonist lipopolysaccharide (LPS) for 15 to 240 min.