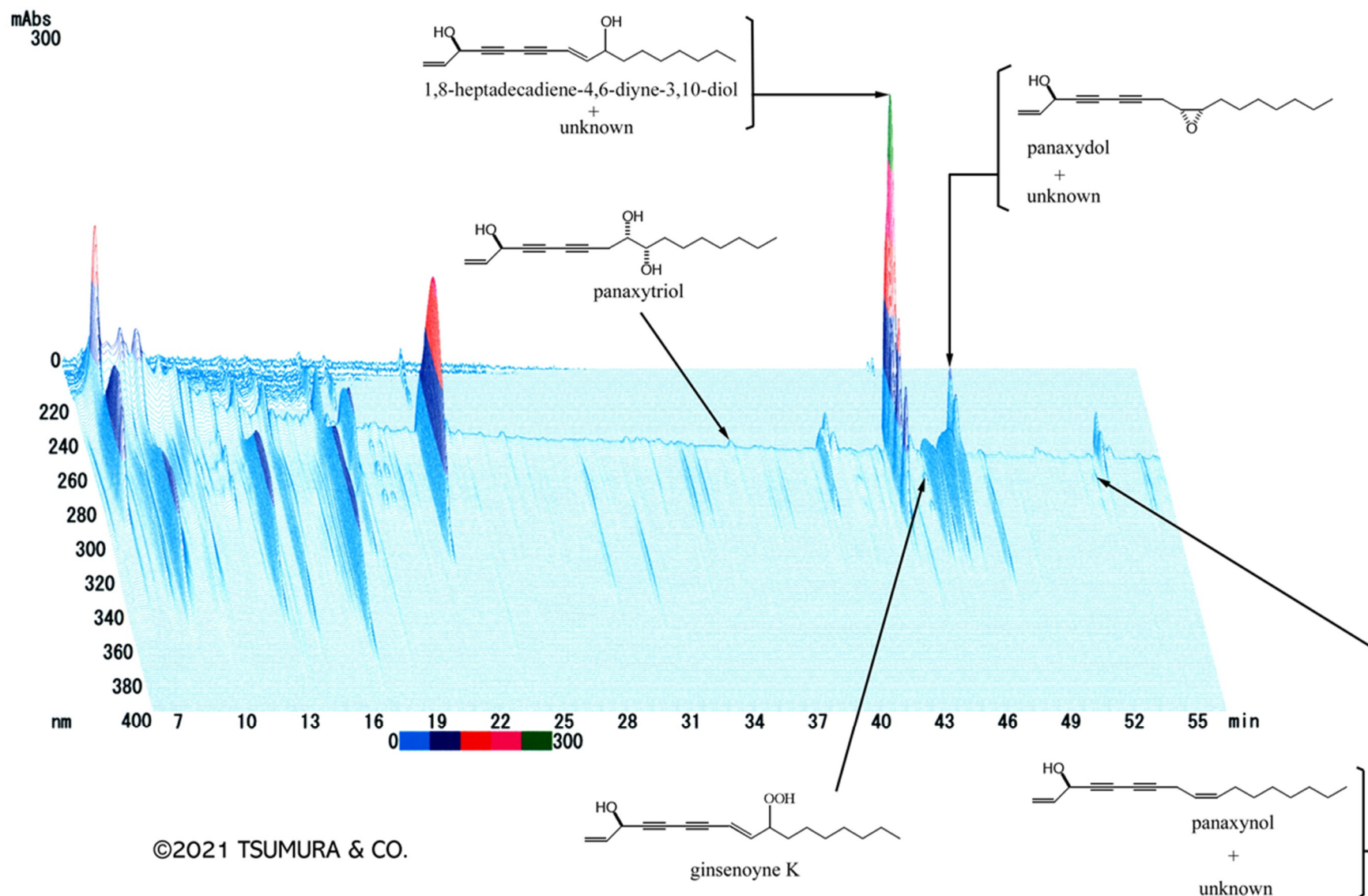
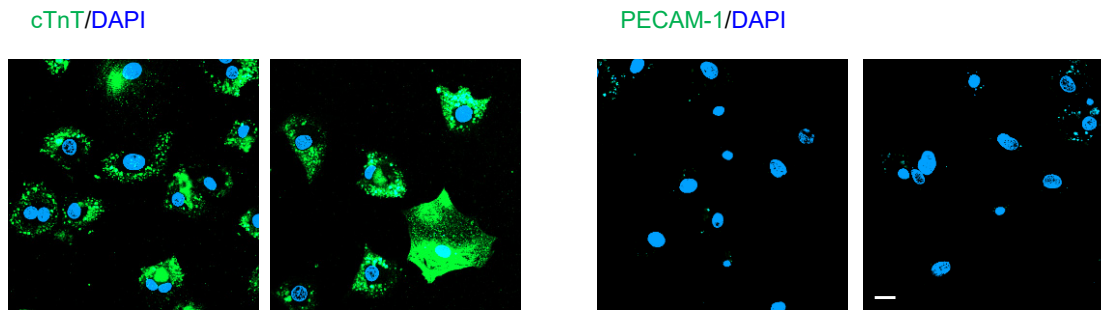
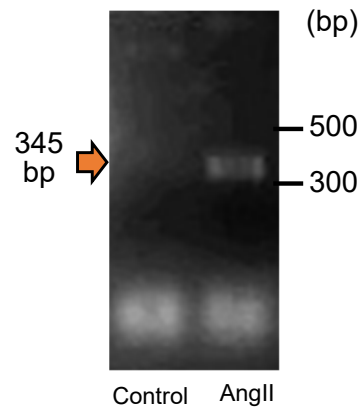




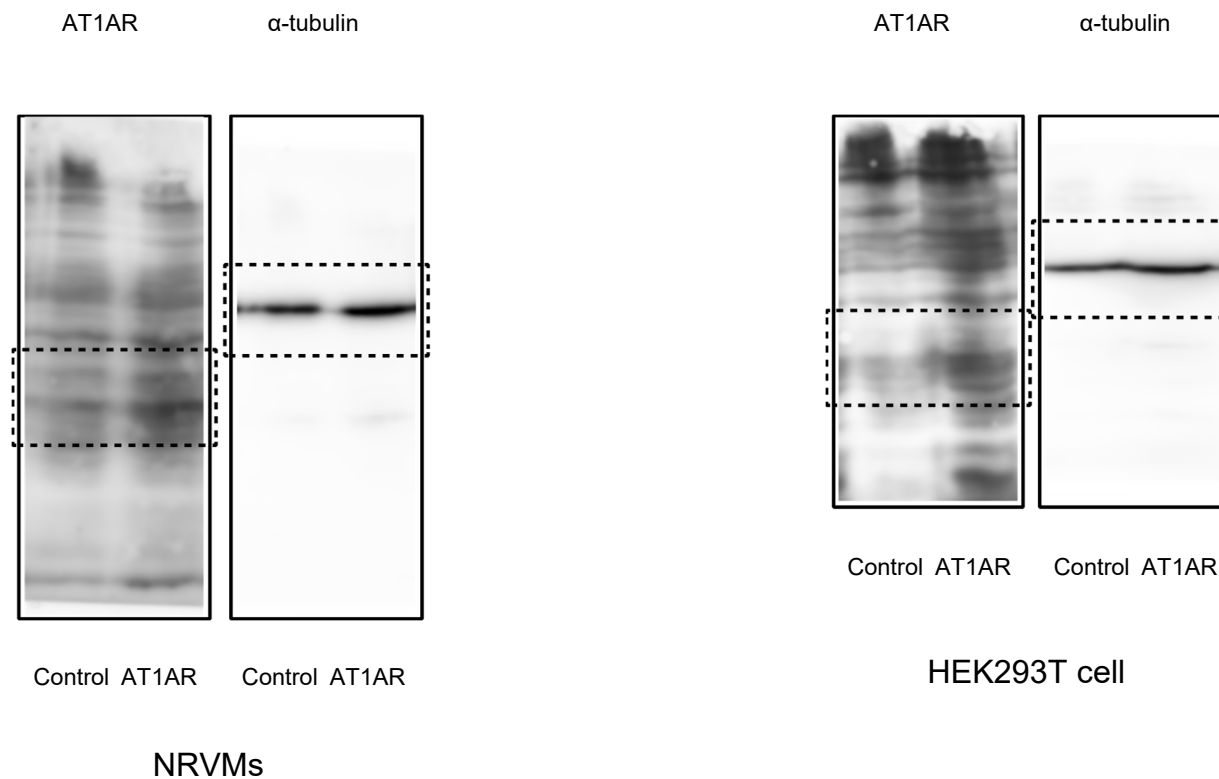
Supplementary Fig. S1. Representative 3D-HPLC chromatogram showing characteristic phytochemical constituents of *Panax ginseng*, including the polyacetylenes panaxytriol, panaxydol, panaxynol, and ginsenoyne K. The chromatographic profile is presented as a reference for botanical authentication and phytochemical characterization of the crude drug used in this study. The chromatogram was provided by Tsumura & Co. and is consistent with the quality specifications of the Japanese Pharmacopoeia.



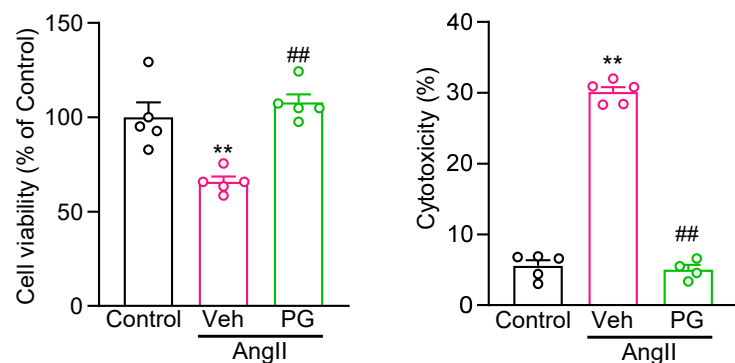
Supplementary Fig. S2. Characterization of primary NRVM cultures. Representative immunofluorescence images of primary neonatal rat ventricular myocyte (NRVM) cultures stained for cardiac troponin T (cTnT; green), a cardiomyocyte marker, or platelet endothelial cell adhesion molecule-1 (PECAM-1/CD31; green), an endothelial cell marker. Nuclei were counterstained with DAPI (blue). Quantitative analysis showed that $91.8 \pm 2.1\%$ of cells were cTnT-positive, whereas $2.8 \pm 2.1\%$ were PECAM-1-positive ($n = 5$), confirming the high cardiomyocyte purity of the NRVM cultures used in this study. Scale bar = 20 μm .



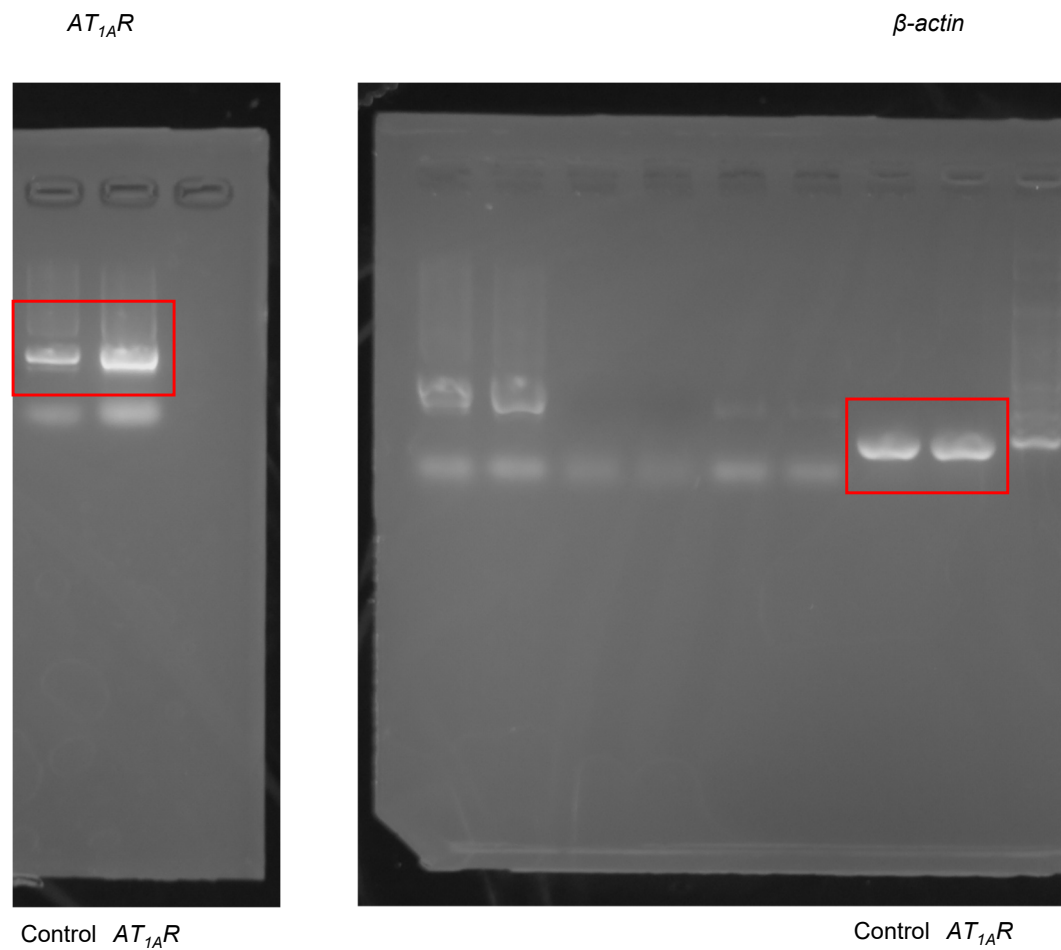
Supplementary Fig. S3. Validation of the AT_{1B}R primer pair in NRVMS. Representative agarose gel electrophoresis showing RT-PCR amplification of AT1BR in control and AngII-treated NRVMS. A specific amplification product was detected at the expected size of 345 bp following AngII treatment, confirming the functionality of the AT1BR primer pair used in the present study. The arrow indicates the expected AT_{1B}R amplification product.



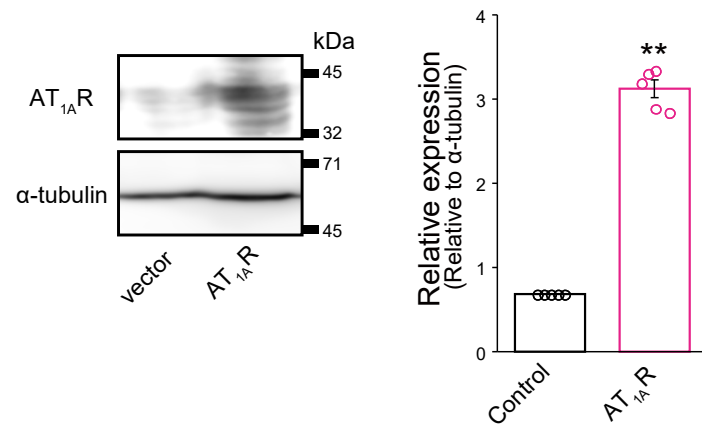
Supplementary Fig. S4. Full-length Western blot images for AT1AR expression in AT1AR-transfected NRVMs and HEK293T cells. Full-length Western blot images showing AT1AR and α -tubulin protein expression in non-transfected control and AT1AR-transfected NRVMs (left) and HEK293T cells (right). The regions corresponding to the bands used for quantitative analysis and representative presentation are indicated by dashed boxes. α -tubulin was used as a loading control.



Supplementary Fig. S5. Effects of PG on cell viability and cytotoxicity in AngII-treated NRVMs. Cell viability (left) and cytotoxicity (right) were assessed in NRVMs treated with vehicle alone (Control), AngII (100 nM) plus vehicle (Veh), or AngII plus PG (10 μ g/ml) under the same experimental conditions used for the hypertrophy assay. Cell viability is expressed as a percentage of Control. Data are presented as mean $\pm$ SEM (n = 5). Data were analyzed by one-way ANOVA followed by Tukey's post hoc test. **P < 0.01 vs. Control; ##P < 0.01 vs. AngII + Veh.



Supplementary Fig. S6. Uncropped RT-PCR gel images corresponding to Figure 5C. The regions used in the main figure are indicated by red boxes.



Supplementary Fig. S7. Confirmation of AT_{1A}R protein expression in AT_{1A}R-transfected HEK293T cells. Representative Western blot and densitometric analysis confirming AT_{1A}R protein expression in HEK293T cells transfected with the AT_{1A}R expression plasmid used for the electrophysiological experiments. α -Tubulin was used as a loading control. AT_{1A}R protein expression was normalized to α -tubulin and expressed relative to the control group. Data are expressed as mean $\pm$ SEM (n = 5). **P < 0.01 vs. Control.