Fig. S1. Stretch-induced biphasic response in the twitch force of single cardiomyocyte from C57BL/6J mice during the stretch protocol. A representative response to axial stretch shows that, following the initial state (a), the twitch force immediately increased after the stretch (Frank-Starling effect) (b) and the sustained stretch (300 s) slowly increased the twitch force (c). Steady-state of the slow force response to stretch was able to be obtained at 300 s after the stretch.

Fig. S2. Effect of U-73343 (the inactive analogue of PLC inhibitor U-73122) on a stretch-induced increase in $[\text{Ca}^{2+}]$ transient in cardiomyocytes from C57BL/6J mice. The increase in $[\text{Ca}^{2+}]$ by the application of the sustained stretch (SSC) was unaffected by U-73343 (10 μM; n = 8). $[\text{Ca}^{2+}]$ transient was recorded in the same condition as U-73122. # $P < 0.05$ vs. Initial state; * $P < 0.05$ vs. Stretch (10s).
**Fig. S3.** Effect of olmesartan, U-73122, BTP-2, and Pyr3 on the [Ca^{2+}] transients at initial state. Fura-4F ratios were compared before and after the application of olmesartan (a; 10 μM; n = 7), U-73122 (b; 10 μM; n = 7), BTP-2 (c; 10 μM; n = 7), and Pyr3 (d; 1 μM; n = 7). These inhibitors did not affect [Ca^{2+}] transient (Fura-4F ratio) at initial state.