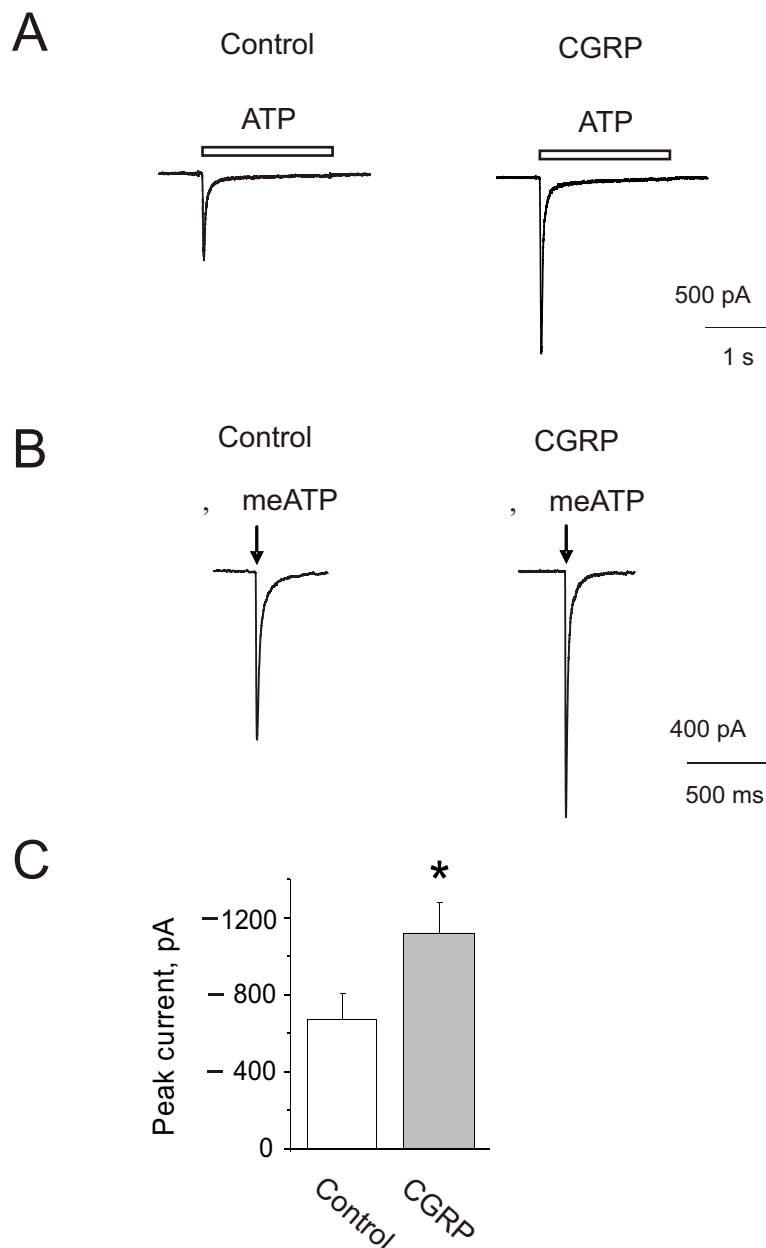


**Supplemental Figure 1.** CGRP binding to TG neurons. **A**, microphotograph depicts TG neurons labeled with rhodamine conjugated CGRP ( $0.5 \mu\text{M}$ ; red) and anti-  $\beta$ -tubulinIII antibody (green). Calibration bar =  $50 \mu\text{m}$ . **B**, Somatic size distribution of TG neurons immunostained with anti-  $\beta$ -tubulinIII antibody (filled columns) and labeled with rhodamine-conjugated CGRP (dashed bars). Data are from approximately 1,500 cells (3 independent experiments). **C**, CGRP ( $1 \mu\text{M}$ , 1 h) has no effect on the amplitude of currents elicited by application of capsaicin ( $1 \mu\text{M}$ , 2 s). **D**, Microphotograph depicts TG neurons labeled with rhodamine conjugated CGRP ( $0.5 \mu\text{M}$ ; red) and anti-TRPV1 antibody (green). Calibration bar =  $50 \mu\text{m}$ .



**Supplemental Figure 2.** CGRP treatment (1  $\mu$ M, 1 h) induces potentiation of peak currents elicited by ATP or , meATP. **A**, Examples of currents evoked in TG neurons by application of ATP (10  $\mu$ M, 2 s) in control condition (left) or after CGRP treatment (right). The mean peak current amplitude induced by ATP after 1 h CGRP exposure is  $180 \pm 38$  % of control ( $n = 23$ ), indicating analogous potentiation as observed with , -meATP. **B**, CGRP (1  $\mu$ M, 1 h) increases currents elicited by short (10 ms) pressure application of , -meATP (200  $\mu$ M). Examples of , meATP-evoked currents in control condition (left) or after 1 h CGRP treatment (right). This result shows that the CGRP-evoked enhancement of P2X<sub>3</sub> receptor function is not biased by the method of agonist application. **C**, Peak current amplitude evoked by puffer-applied , meATP is significantly increased by CGRP treatment ( $p = 0.044$ ;  $n = 11$ ) with respect to control ( $n = 10$ ). Note that current deactivation is not affected by CGRP treatment because the rapid phase of current monoexponential decay was  $23 \pm 7$  and  $21 \pm 5$  ms for control and treated neurons ( $n = 9$  and 8, respectively).