Tannic acid based nanogel as an effective anti-inflammatory agent

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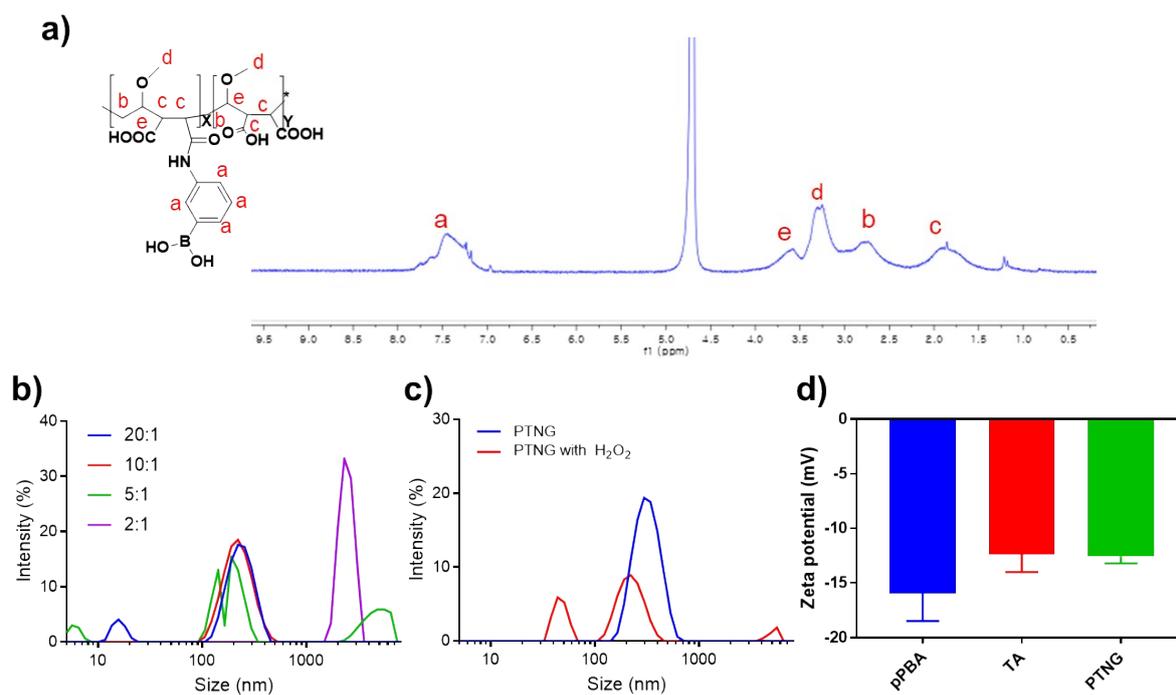
Figure S1 (a) ^{1}H NMR spectrum of synthesized pPBA. (b) Size distribution of PTNG at various ratio. (c) Size distribution of PTNG with and without H_2O_2. (c) Zeta potential of pPBA, TA and PTNG (n=3, mean ± SD).
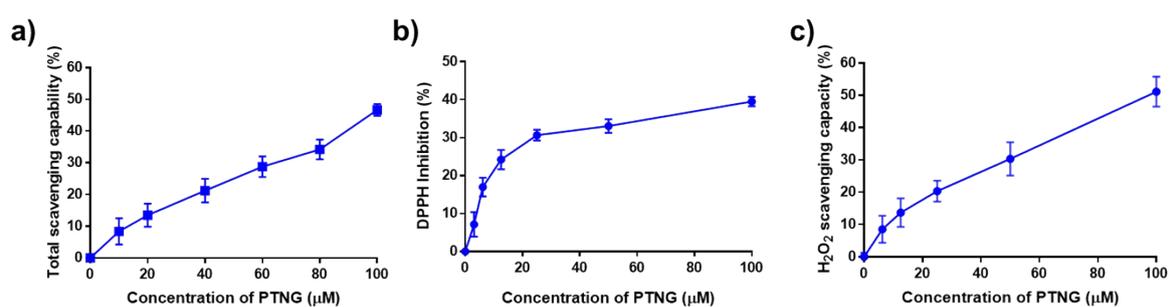
Figure S2. Various ROS scavenging assays with increased PTNG concentrations. Scavenging assay of (a) total ROS, (b) free radical (DPPH), and (c) H_2O_2 (n=3, mean ± SD).
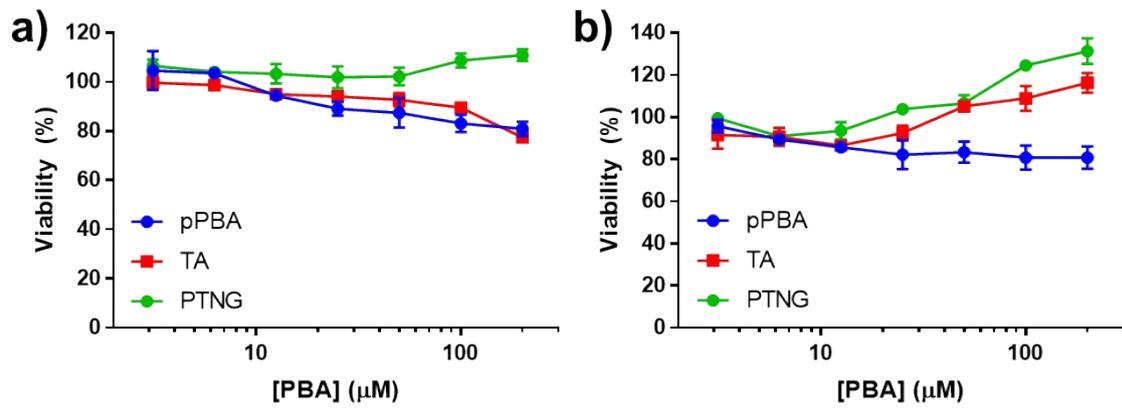
Figure S3. Cytotoxicity test against (a) CT-26 and (b) RAW 264.7 with increasing [PBA] concentration (n=4, mean ± SD).
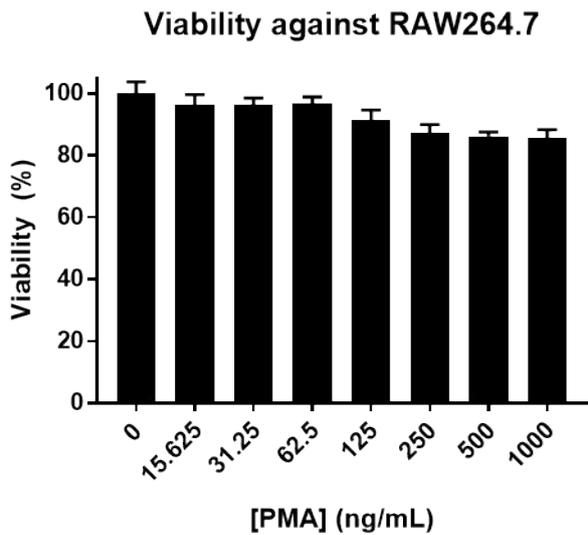
Figure S4. Cytotoxicity test against RAW 264.7 with increasing PMA concentration (n=4, mean ± SD).
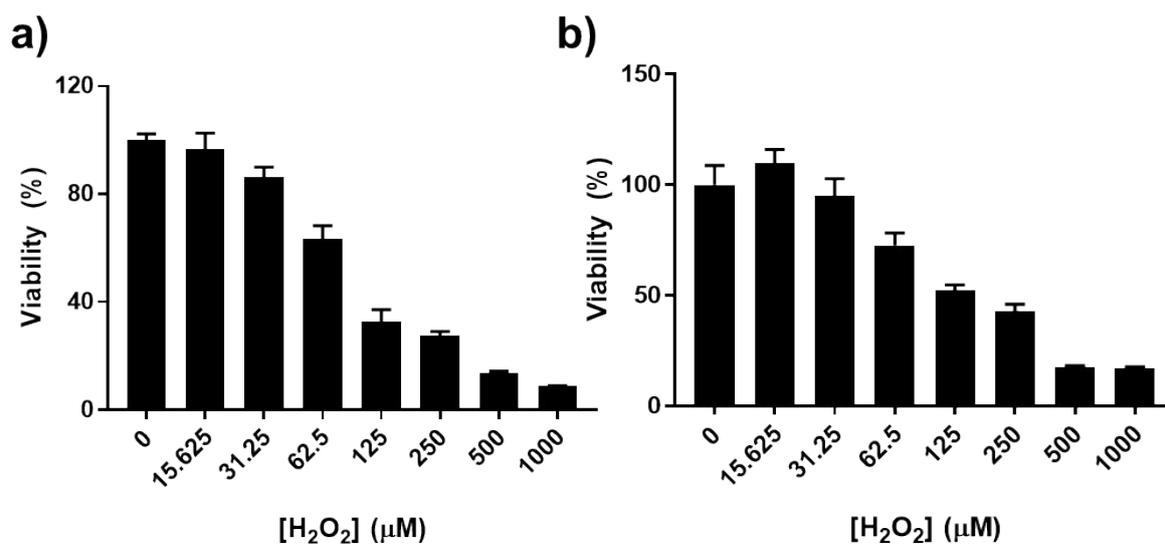
Figure S5. Cytotoxicity test against (a) CT 26 and (b) RAW 264.7 with increasing $[H_2O_2]$ concentration (n=4, mean ± SD).
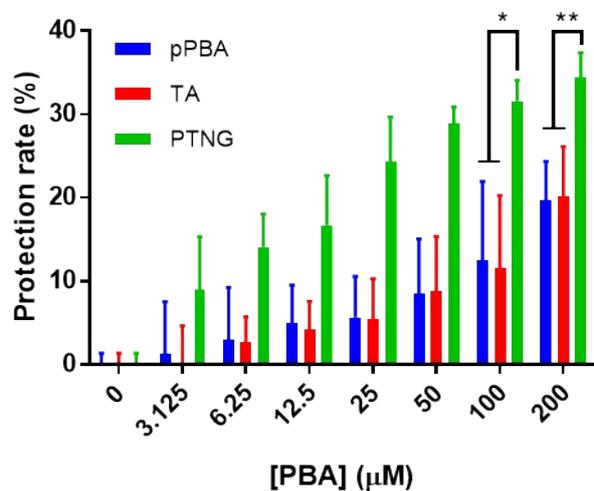
Figure S6. ROS protection test of pPBA, TA and PTNG under H_2O_2 (n=4, mean ± SD, *$p<0.05$, **$p<0.01$).
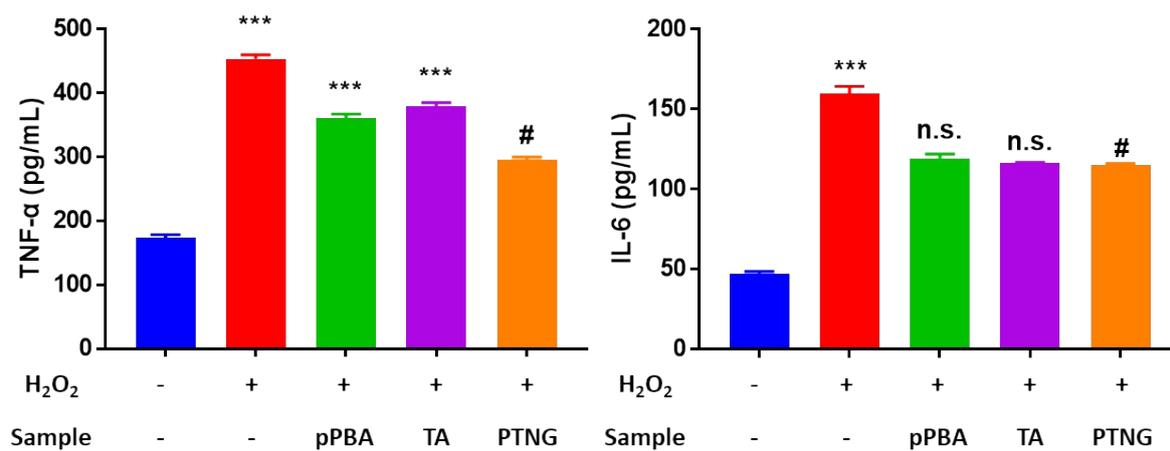
Figure S7. Quantitative assay of pro-inflammatory cytokine (a) TNF-α and (b) IL-6 after treating each sample under H_2O_2, (n=3, mean ± SD, # compared with sample groups, *** $p <$ 0.005)
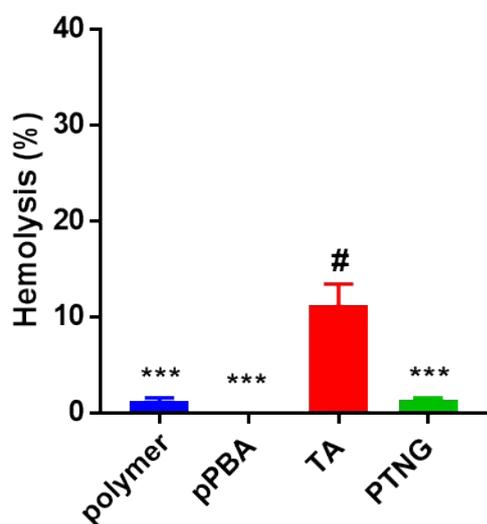
Figure S8. Hemolysis test of polymer, pPBA, TA and PTNG (n=3, mean ± SD, # compared with sample groups, ***$p<0.001$).
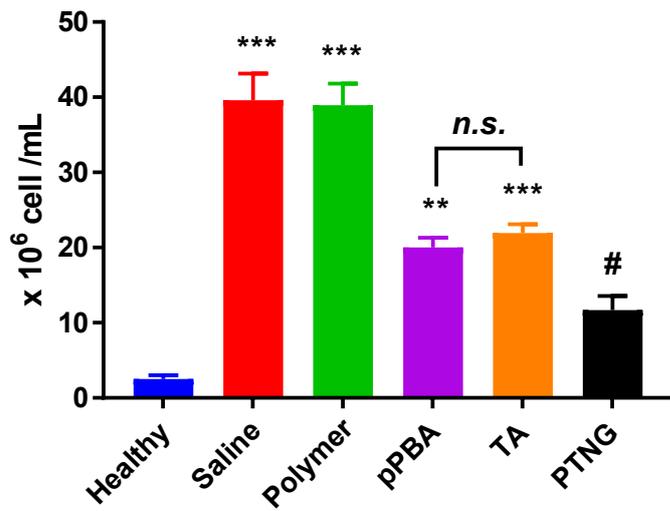
Figure S9. Total cells number in peritoneal lavage (n=3, mean ± SD, # compared with sample groups, ** $p < 0.01$, *** $p < 0.001$).
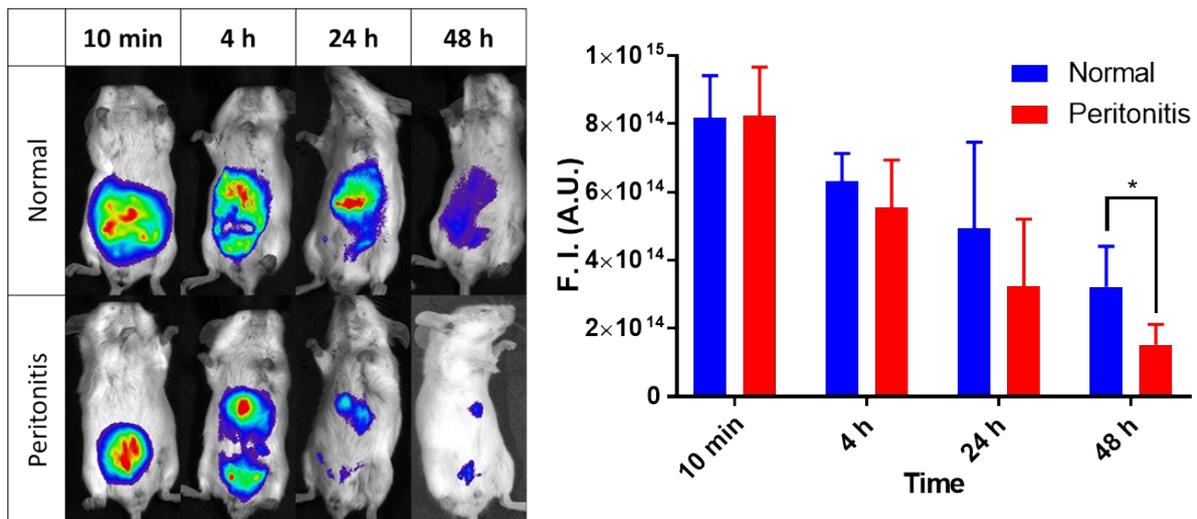
Figure S10. Biodistribution of PTNG after administration (n=3, mean ± SD, *$p<0.05$).
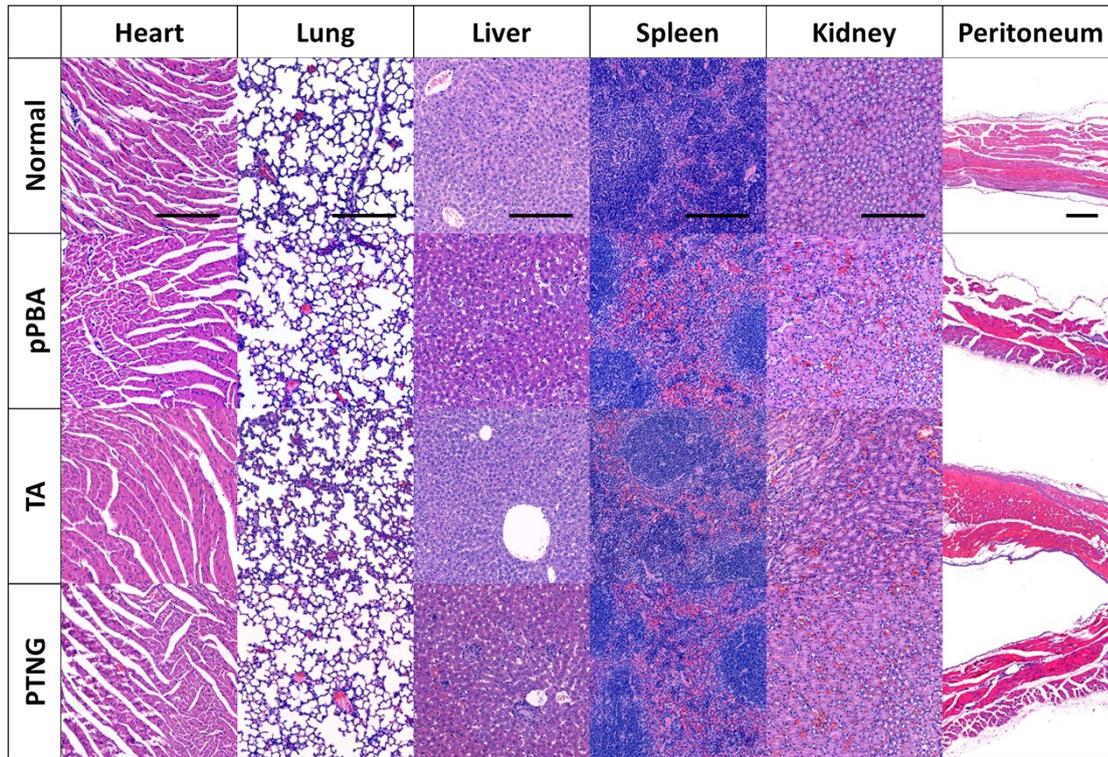
Figure S11. Histology of major organs by H&E staining after injection of samples (scale bar = 200 μm).