Supporting Information

Ultra-Small Prussian Blue Nanodots Scavenge Reactive Oxidative Stress and Balance M1/M2 Macrophages to Mitigate Colitis Inflammation

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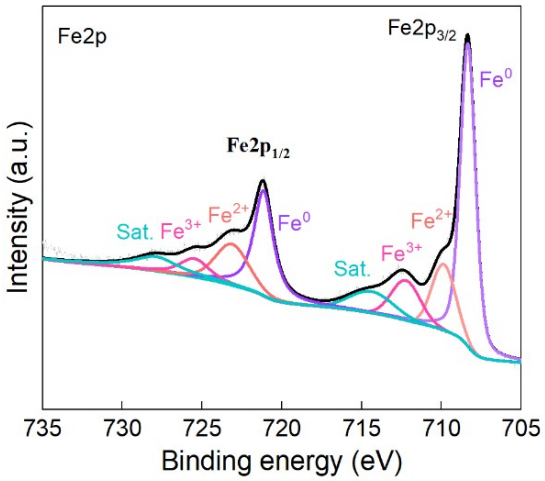

Fig. S1. XPS spectra of Fe 2p in UPBs.

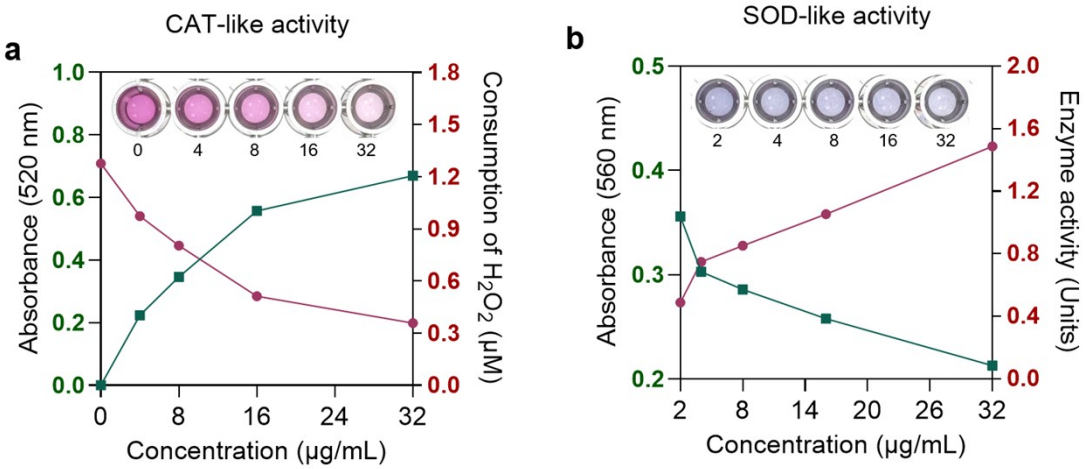

Fig. S2 The anti-oxidative activities of UPBs. (a) CAT-like activity of UPBs. (b) SOD-like activity of UPBs. Inhibition ratio of O_2^{-}• using a total superoxide dismutase assay kit with NBT with different concentration of UPBs,

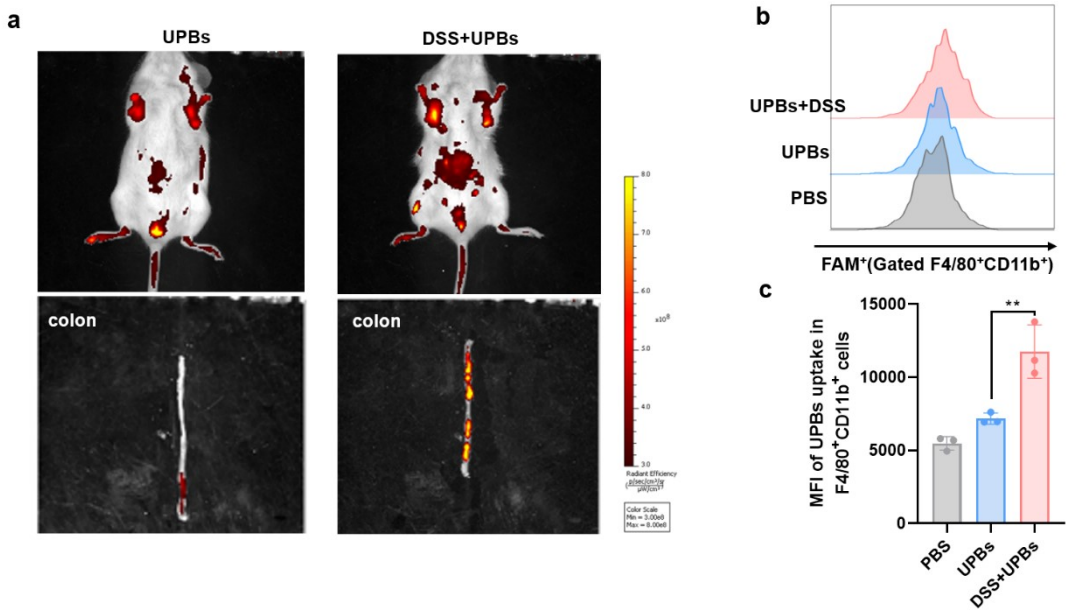

Fig. S3. In vivo biodistribution and macrophage uptake of UPBs@FAM.
(a) Fluorescence imaging of whole-body and excised colon tissues from healthy and DSS-induced colitis mice at 3 hours post intraperitoneal injection of UPBs@FAM, showing increased accumulation in inflamed colonic tissues. (b) Flow cytometric analysis of peritoneal macrophages (gated on $F4/80^{+}CD11b^{+}$) indicating enhanced cellular uptake of UPBs@FAM in the DSS group compared to controls. (c) Quantification of mean fluorescence intensity (MFI) of FAM^{+} signal in $F4/80^{+}CD11b^{+}$ macrophages across treatment groups. Data represent mean ± SD (n=3); $^{**}P<0.01$.

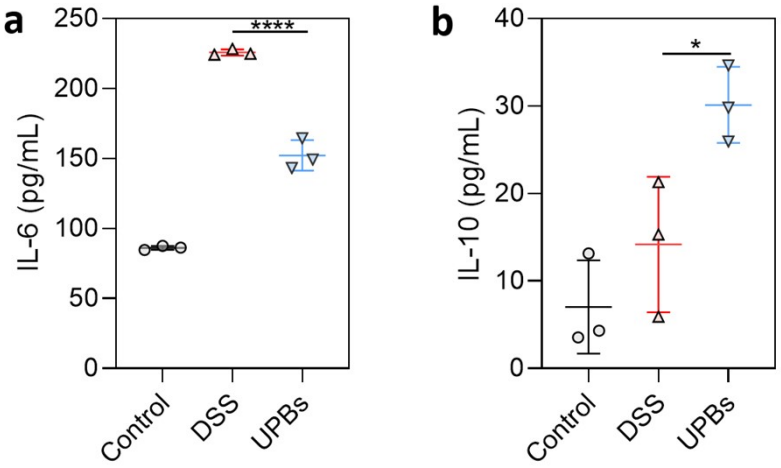

Fig. S4. Detection of (a) IL-6 and (b) IL-10 in colon tissue supernatant by ELISA.

Table S1. Primer sequences used for real-time PCR

Gene	Forward Primer(5' to 3')	Reverse Primer (3'-5')
GAPDH	AGGTCGGTGTGAACGGATTTG	GGGGTCGTTGATGGCAACA
CD206	GCTTCCGTCACCCTGTATGC	TCATCCGTGGTTCCATAGACC
IL-10	CTTACTGACTGGCATGAGGATA	GCAGCTCTAGGAGCATGTGG
Arg-1	CTCCAAGCCAAAGTCCTTAGAG	GGAGCTGTCATTAGGGACATCA
IL-1β	CTGTGACTCATGGGATGATGATG	CGGAGCCTGTAGTGCAGTTG
TNF-α	CTGAACTTCGGGGTGATCGG	GGCTTGTCACTCCAATTTTGAGA
iNOS	GTTCTCAGCCCAACAATACAAGA	GTGGACGGGTCGATGTCAC