

Supporting Information

Size-Dependent Translocation of Nanoemulsions *via* Oral Delivery

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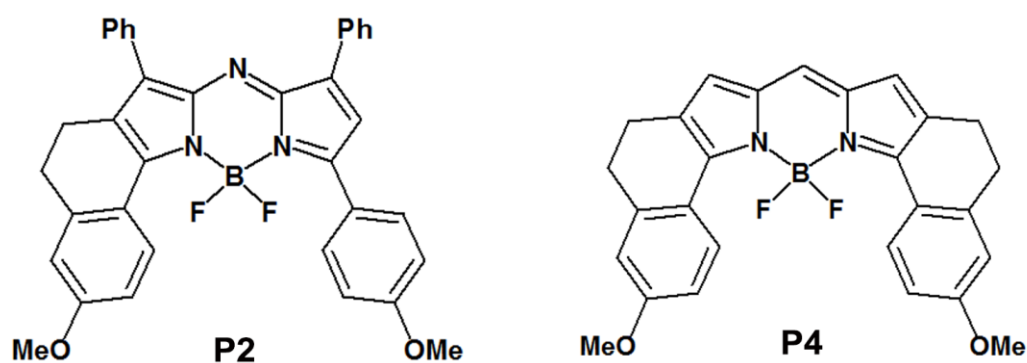
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Table S1 Compositions of various simulated gastrointestinal fluids

Components	SGF	SIF	FaSSGF	FaSSIF	FeSSIF
Pepsin (g)	3.2	-	-	-	-
Pancreatin (g)	-	10	-	-	-
KH ₂ PO ₄ (g)	-	6.8	-	-	-
Sodium taurocholate	-	-	80 µM	6 mM	15 mM
Lecithin (g)	-	-	20 µM	1.5 mM	3.75 mM
NaH ₂ PO ₄ ·H ₂ O (g)	-	-	-	3.954	-
NaOH (g)	-	q.s.	-	0.348	4.04
NaCl (g)	2.0	-	2.0	6.186	11.874
CH ₃ COOH (g)	-	-	-	-	8.65
HCl	q.s.	-	q.s.	-	-
H ₂ O (mL)	1000	1000	1000	1000	1000

Abbreviations:

SGF: simulated gastric fluid; SIF: simulated intestinal fluid; FaSSGF: fasted-state simulated gastric fluid; FaSSIF: fasted-state simulated intestinal fluid; FeSSIF: fed-state simulated intestinal fluid

**Figure S1. Chemical structure of the fluorescent probes used to label NEs**

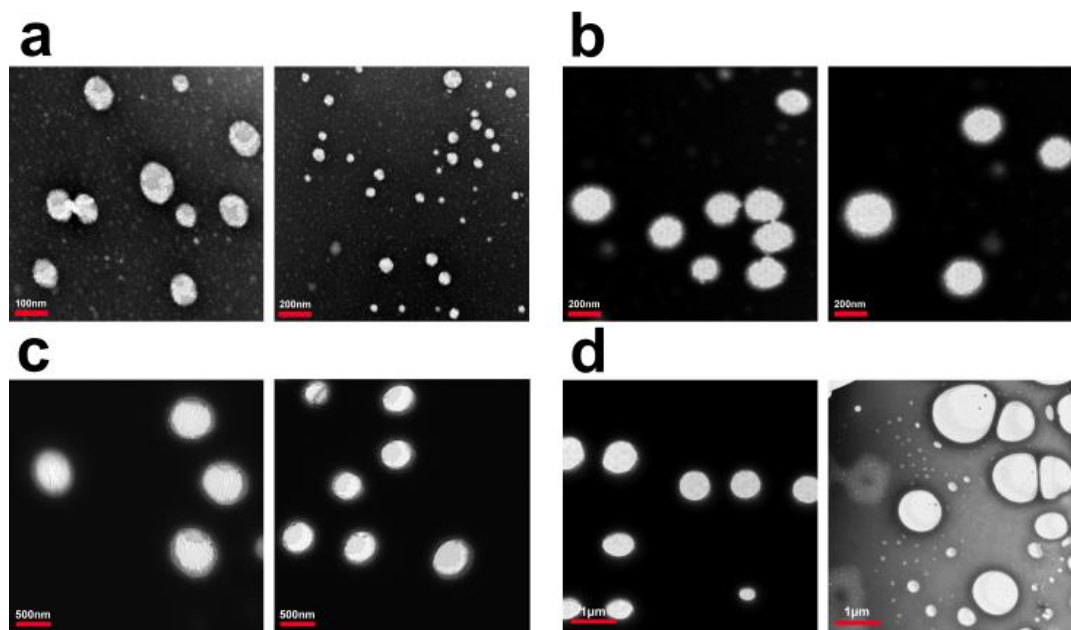


Figure S2. TEM photographs of nanoemulsions of different particle sizes: 80 nm (a); 200 nm (b); 500 nm (c); 1000 nm (d)

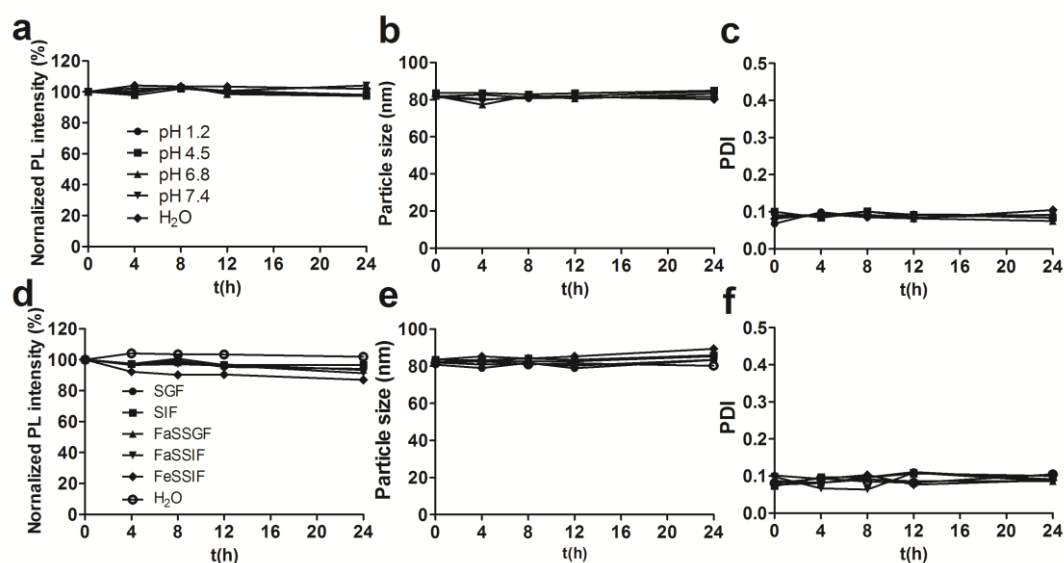


Figure S3. Changes of fluorescent intensity, particle size and PDI of 80-nm P2-NEs in different buffers (a, b, c) and different simulated gastric or intestinal fluid (d, e, f).

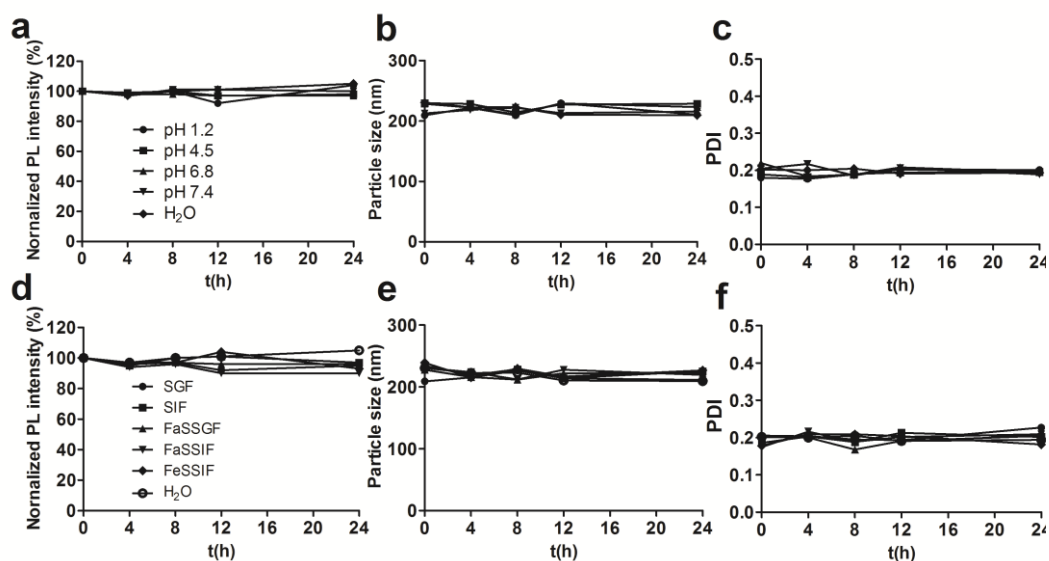


Figure S4. Changes of fluorescent intensity, particle size and PDI of 200-nm P2-NEs in different buffers (a, b, c) and different simulated gastric or intestinal fluid (d, e, f).

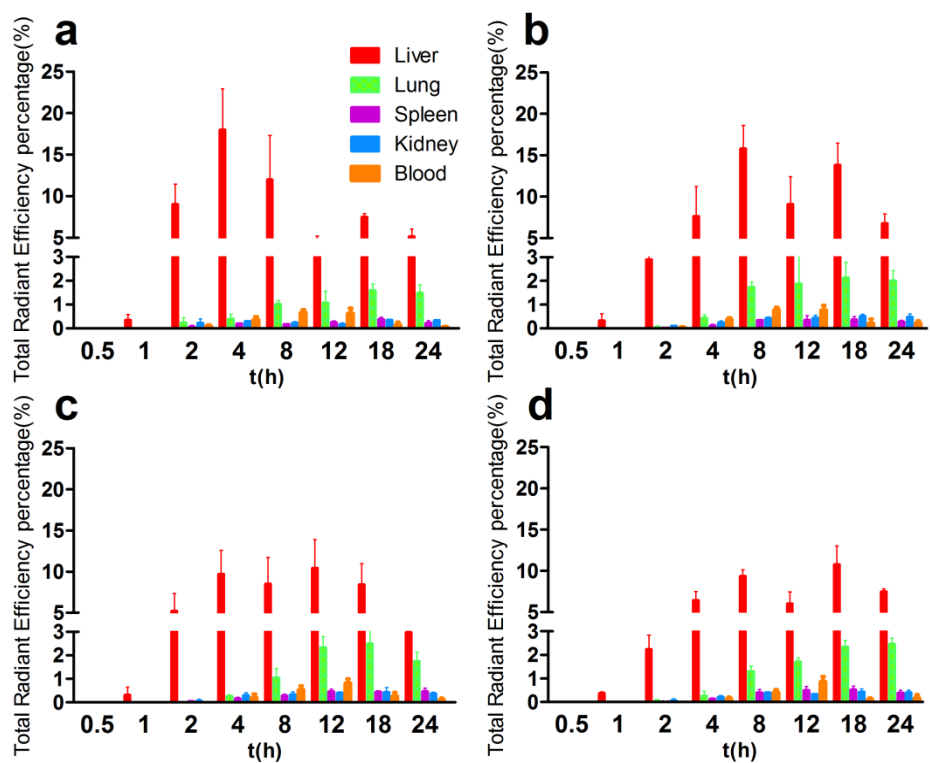


Figure S5. Bio-distribution percentage of (a) 80nm-P2-NE;(b) 200nm-P2-NE; (c) 550nm-P2-NE; (d)1000nm-P2-NE in main organs and blood