

SUPPLEMENTAL MATERIALS

Table S1. Composition of hydrogel particles

Monomer	Cationic Weight %	Anionic Weight %
2-aminoethyl methacrylate HCl (AEM)	10-20	0
PEG <sub>700</sub> diacrylate (PEGDA)	10-20	10-20
Hydroxy PEG <sub>250</sub> acrylate (HP(250)A)	67	77-87
2,4,6 trimethylbenzoyl diphenylphosphine oxide (TPO)	1	1
*DyLight 680 or AlexaFluor 488	2	2
Total	100	100

Table S2. Characterization of bare particles

Mold Dimensions	Size (d.nm)	PDI	Zeta Potential (mV)
80×180 (-)	200.8 ± 11.6	0.025 ± 0.017	-24.6 ± 0.3
80×2000 (-)	595.7 ± 2.6	0.133 ± 0.051	-28.7 ± 0.5
200×200 (-)	251.2 ± 2.1	0.128 ± 0.008	-29.8 ± 0.3
1 μm (-)	1292 ± 189	-	-30.0 ± 0.8
80×180 (+)	183.8 ± 2.4	0.126 ± 0.017	42.0 ± 1.5
80×2000 (+)	370.2 ± 27.7	0.069 ± 0.011	32.6 ± 1.4
200×200 (+)	256.2 ± 21.8	0.104 ± 0.086	43.1 ± 1.8
1 μm (+)	2581 ± 6.6	-	22.0 ± 0.7

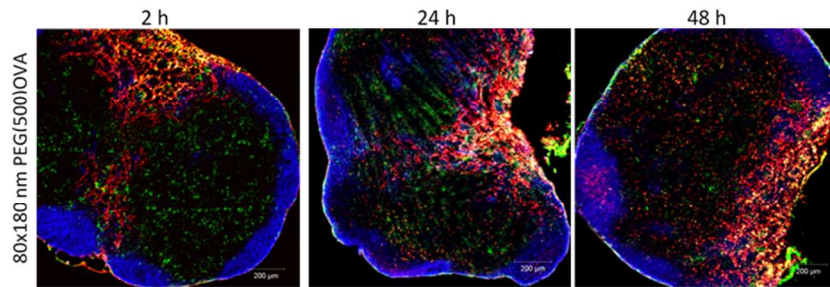


Figure S1. Uptake of 80×180 nm PEG(500)OVA particles by dendritic cells were confirmed by confocal microscopy at various time points post subcutaneous injections of particles. Blue: B cell (B220<sup>+</sup>); green: dendritic cells (CD11c<sup>+</sup>); red: particles.

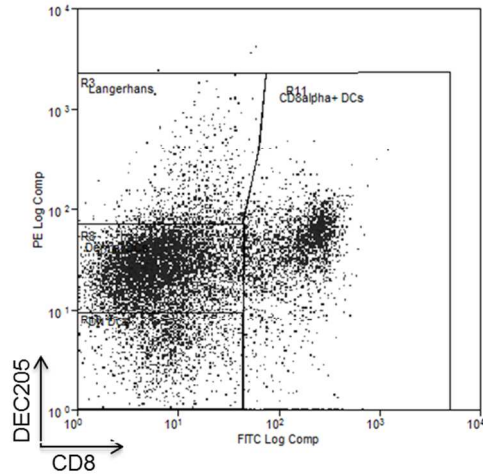


Figure S2. Analysis of LN DC subsets by flow cytometry. Single cell suspension of LNs were stained with anti-mouse CD11c, CD8 $\alpha$  and DEC205. Cells gated on CD11c<sup>+</sup> were shown. The CD11c<sup>+</sup> DC populations are defined as: CD8 $\alpha$ <sup>+</sup> DC (CD11c<sup>+</sup>CD8 $\alpha$ <sup>+</sup>), DN DC (CD11c<sup>+</sup>DEC205<sup>-</sup>CD8 $\alpha$ <sup>-</sup>), langerhan cell (CD11c<sup>+</sup>DEC205<sup>hi</sup>CD8 $\alpha$ <sup>-</sup>), and dermal DC (CD11c<sup>+</sup>DEC205<sup>int</sup>CD8 $\alpha$ <sup>-</sup>).