Reduction of Nanoparticle Avidity Enhances the Selectivity of Vascular Targeting and PET Detection of Pulmonary Inflammation

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Supporting Information:

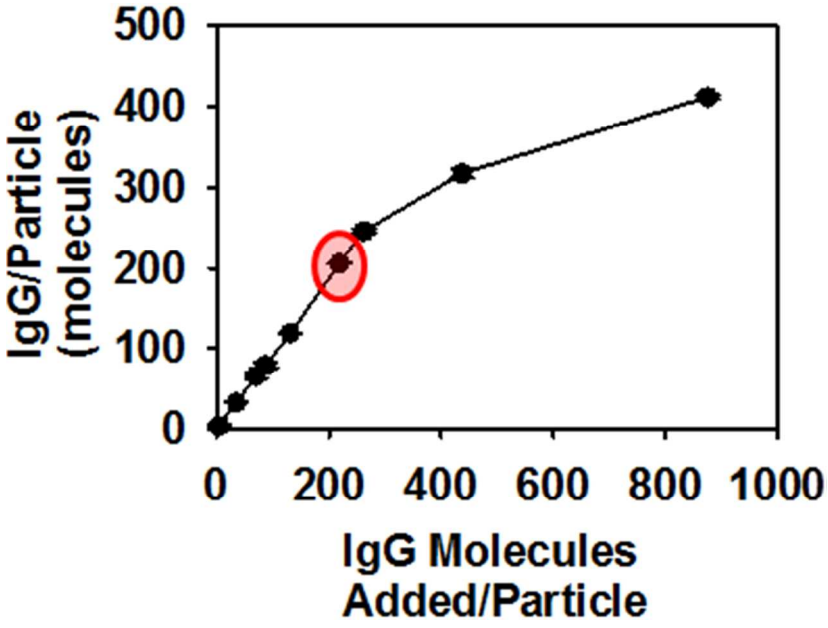

Fig. S1. Antibody coverage analysis of NPs. [^{125}I]IgG adsorbed onto NPs was calculated as the number of IgG molecules adsorbed per NP as a function of the number of IgG molecules added to NPs. Full coating (~200 Ab/NP, highlighted in red) denotes theoretical saturating coverage.

TABLE S1. Characterization of aICAM-NP[a]

	D_{avg} (nm)	Polydispersity (PD)
IgG NP	187 ± 8	0.17
5 Ab/NP	183 ± 6	0.11
50 Ab/NP	186 ± 7	0.12
100 Ab/NP	192 ± 7	0.18
200 Ab/NP	198 ± 9	0.19

[a]Average hydrodynamic radius, D_{avg} and PD for anti-ICAM-1/NP were determined by DLS

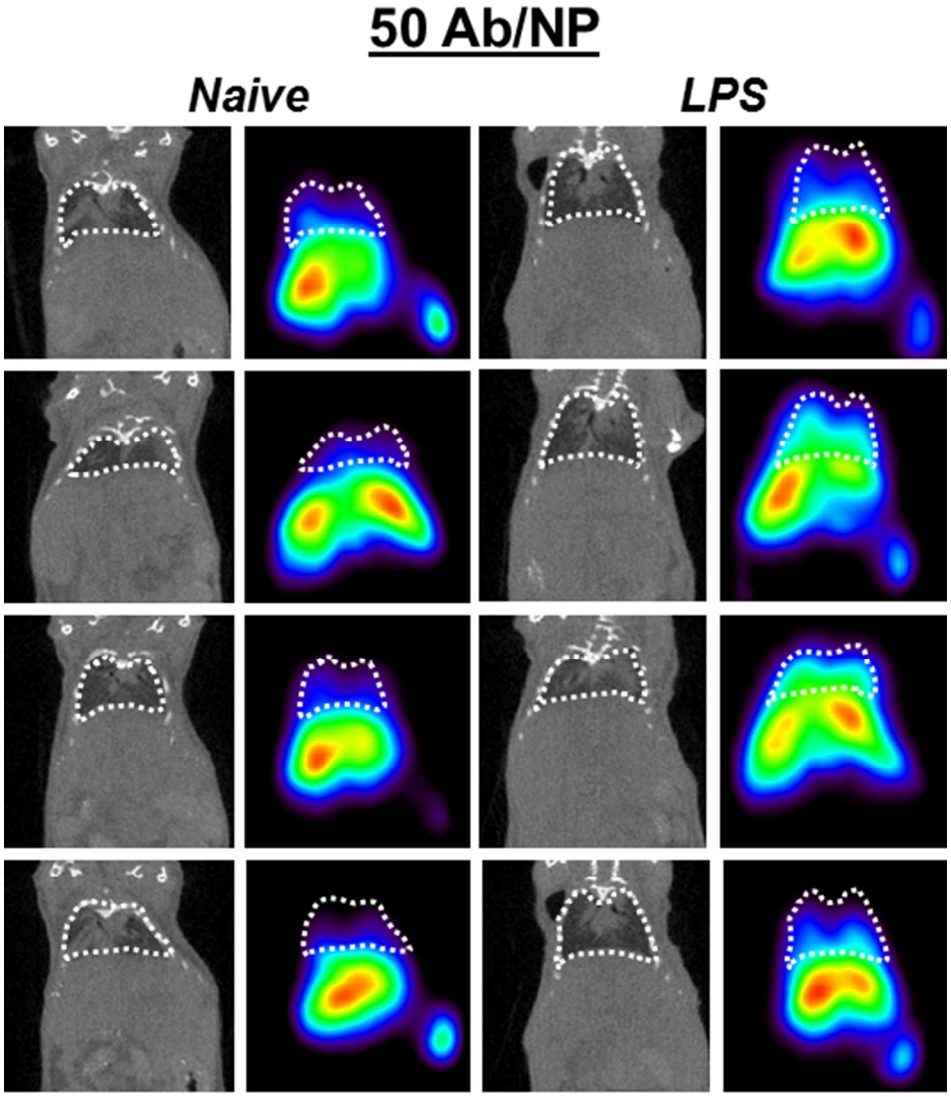

Fig. S2. Coronal sections of real-time *in vivo* CT and PET images acquired after administration of ICAM-1-targeted [^{124}I]-NP (50 Ab/NP) in naïve and LPS-challenged mice. Each animal is a 1 h summed PET image overlaid with an anatomical CT scan for a total of n=4 for each group.

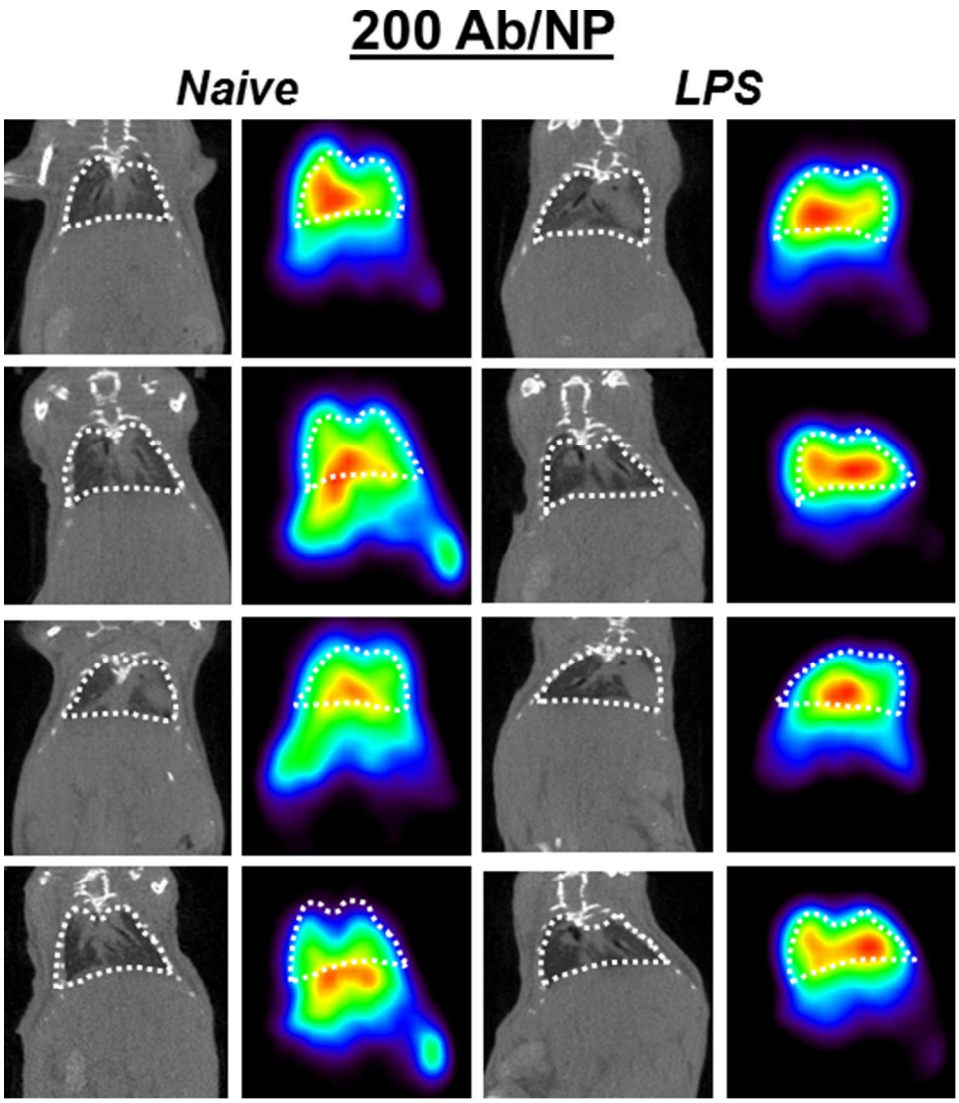

Fig. S3. Coronal sections of real-time *in vivo* CT and PET images acquired after administration of ICAM-1-targeted [^{124}I]-NP (200 Ab/NP) in naïve and LPS-challenged mice. Each animal is a 1 h summed PET image overlaid with an anatomical CT scan for a total of n=4 for each group.

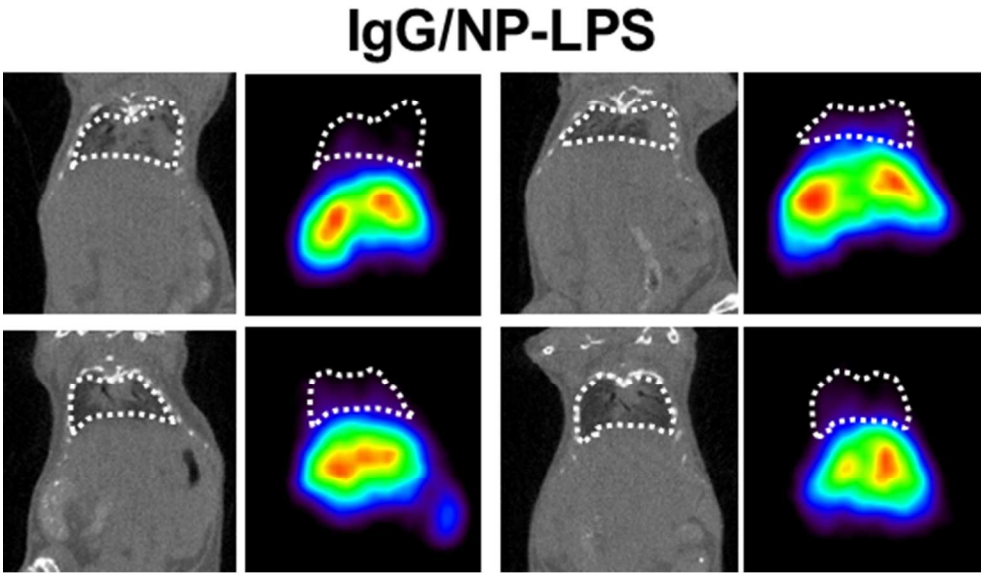

Fig. S4. Coronal sections of real-time *in vivo* CT and PET images acquired after administration of IgG-control [^{124}I]-NP (200 Ab/NP) in LPS-challenged mice. Each animal is a 1 h summed PET image overlaid with an anatomical CT scan for a total of n=4 for each group.