

**Supplemental Figure 1:** Liver time-activity curves demonstrated receptormediated accumulation of Ga-68-labeled *IRDye800*-tilmanocept, which influenced tilmanocept uptake by the renal cortex. low (0.02 nmol/g) scaled molar dose of <sup>68</sup>Ga-labeled-*IRDye800*-tilmanocept (FL-tilmanocept) or <sup>68</sup>Ga-labeled-DTPA-*IRDye800*-galactosyl-dextran (FL-*gal*-dextran), or a high (0.10 nmol/g) scaled dose of FL-tilmanocept, or a coinjection of FL-tilmanocept and 5.0 nmol/g tilmanocept.

*IRDye800*-DTPA-gal-dextran (red) Podocytes (blue)



Supplemental Figure 2A. Histologic demonstration of tilmanocept specificity for the CD206 receptor. Three histomicrographs from the same section (frozen section, 5 um) of a healthy rat kidney excised 40 minutes after a 0.02nmol/g injection of IRDye800CW-DTPA-galactosyl-dextran radiolabeled with gallium-68. (A) A dual-channel composite (AlexaFluor488, AlexaFluor647) at 20x magnification representing the distribution of podocytes (blue) and CD206 (green). (B) A dual-channel composite (AlexaFluor488, IRDye800CW, 20x) demonstrating the distribution of podocytes (blue) and the very low presence of IRDye800-DTPA-galactosyl-dextran (red). (C) A three-channel composite (AlexaFluor488, AlexaFluor647, IRDye800CW, 20x), which demonstrates the lack co-localization (yellow) of IRDye800-DTPA-galactosyl-dextran (red) and CD206 (green) within the glomerular compartment (blue).



CD206 receptor (green) *IRDye800*-DTPA-gal-dextran (red) Podocytes (blue)

145 µm



CD206 receptor (green) IRDye800-tilmanocept (red) Podocytes (blue)





Supplemental Figure 3A. Histologic demonstration of tilmanocept binding to the CD206 receptor within the mesangium. Three histomicrographs from the same section (frozen section, 5 um) of a healthy rat kidney excised 40 minutes after a 0.1 nmol/g injection of IRDve800-tilmanocept radiolabeled with gallium-68. (A) A dualchannel composite (AlexaFluor488, AlexaFluor647) at 20x magnification representing the distribution of podocytes (blue) and CD206 (green). (B) A dual-channel composite (AlexaFluor488, IRDye800CW, 20x) representing the distribution of podocytes (blue) and tilmanocept (red). The presence of IRDve800 (red) outside (arrows) of the podocyte (blue) fields is consistent with filtered IRDye800-tilmanocept within the renal tubules; the urinary bladder of this rat accumulated 14% of the dose during the 40-minute imaging study. (C) A three- channel composite (AlexaFluor488, AlexaFluor647, IRDye800CW, 20x), which demonstrates co-localization (overlapping stains result in yellow) of tilmanocept (red) and CD206 (green) within the glomerular compartment (blue).