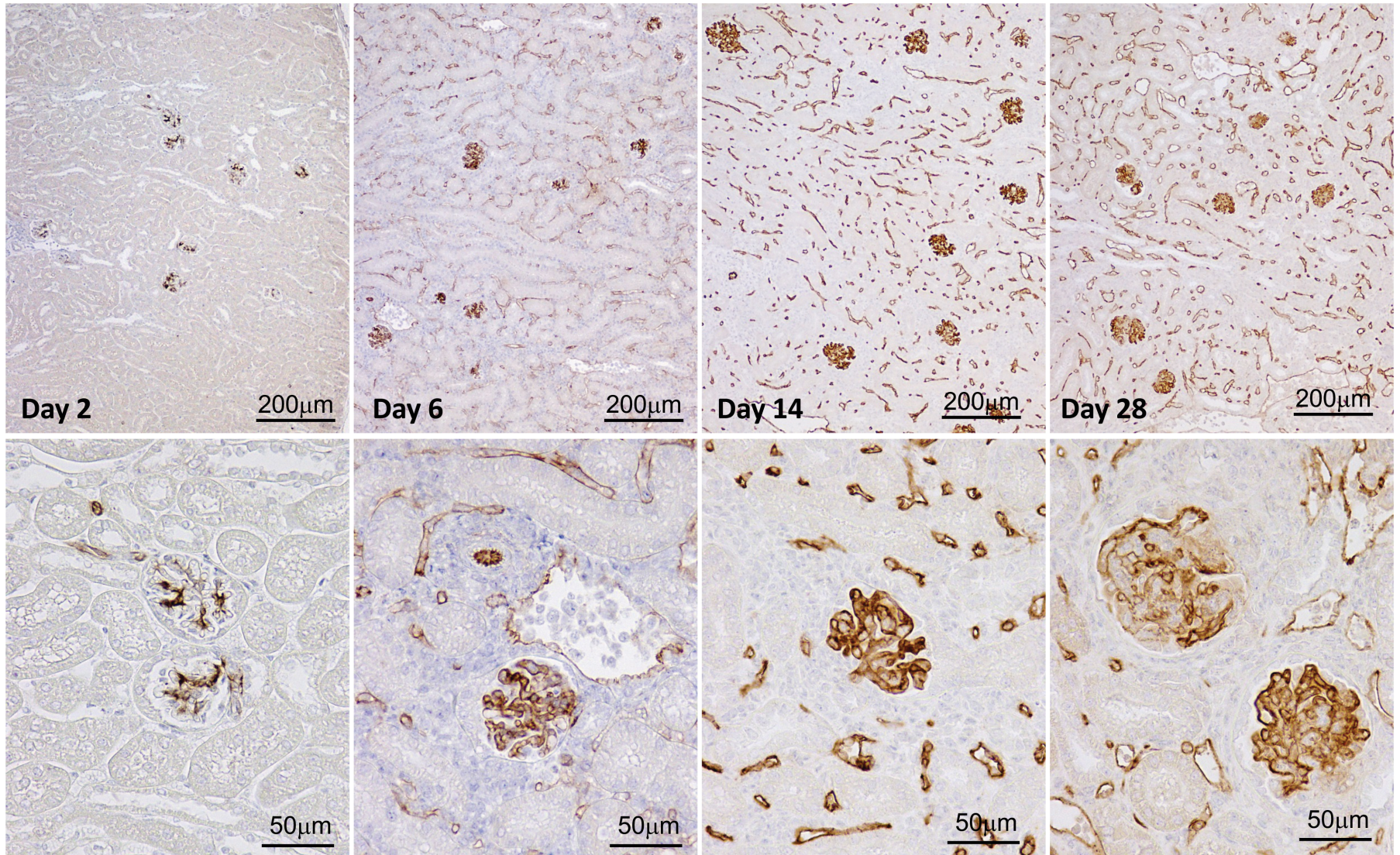


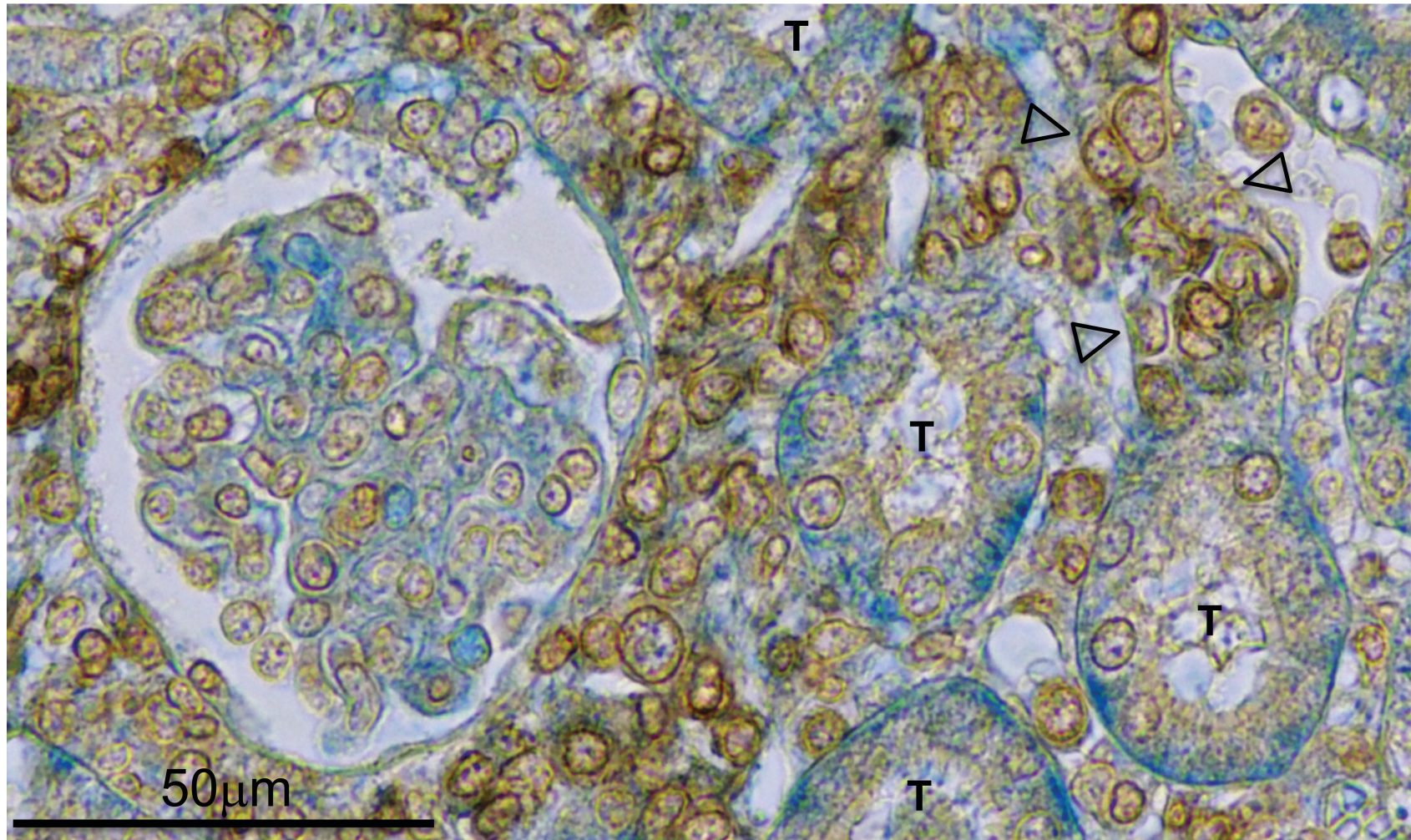
Supplementary Fig S1:

C4d deposition on days 2 to 28 in A/J kidneys transplanted to C57BL/6 mice



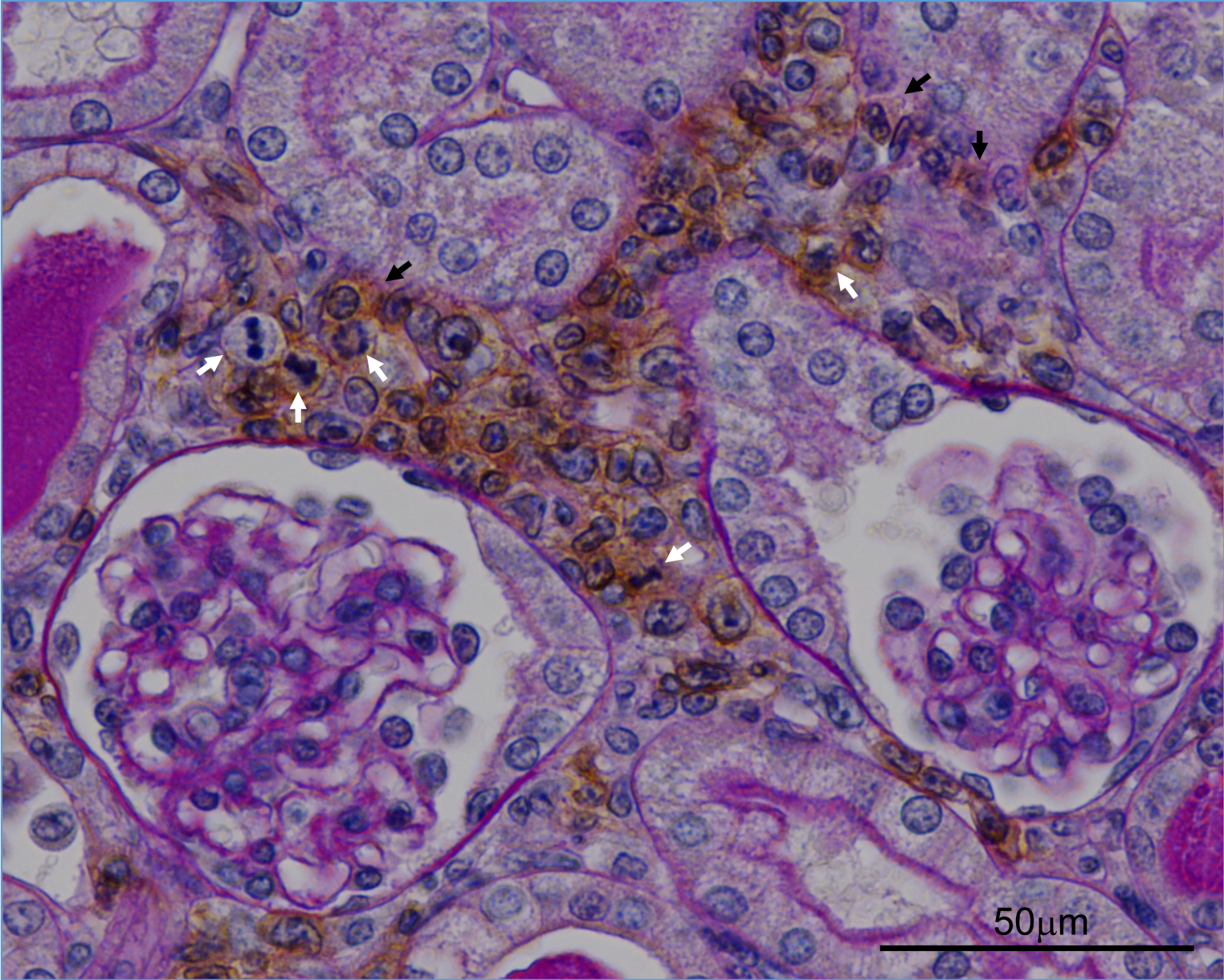
Supplementary Fig S2:

Expression of PD-L1 in relation to PD-1 positive cells infiltrating the tubules in allografts to mice treated with blocking antibody to PD-L1.



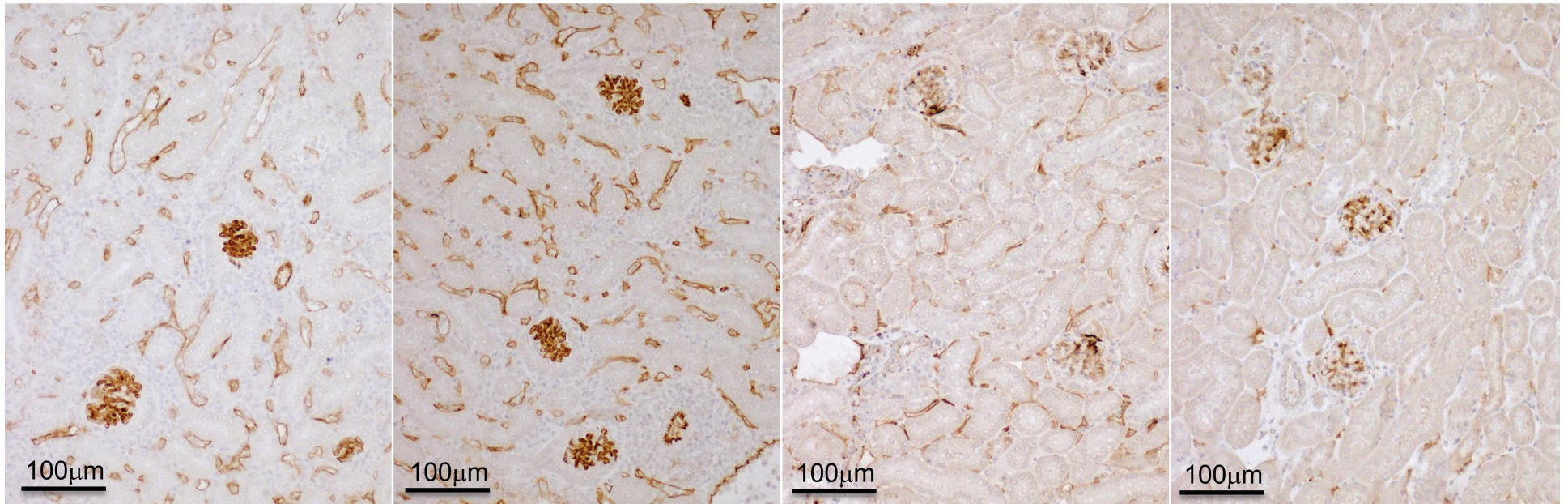
Supplementary Fig S3:

PD-L1 blockade increases mitotically active CD4 T cells and tubular injury.



Supplementary Fig S4:

C4d deposition 6 days after renal allografts to mice treated with blocking antibody to PD-L1 with or without depletion of T cells



Anti-PDL1 alone

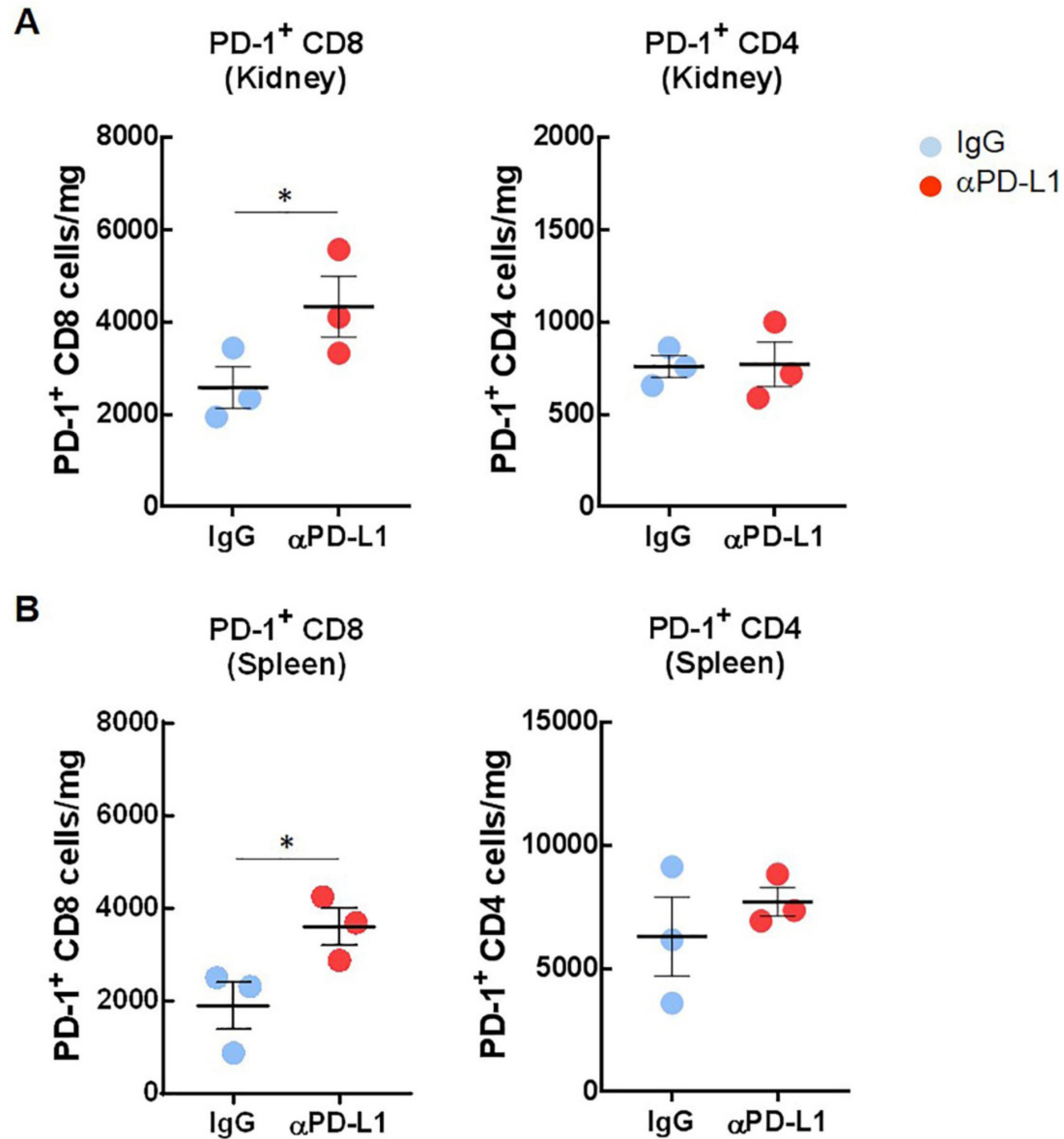
Anti-PDL1 +
Anti-CD8

Anti-PDL1 +
Anti-CD4

Anti-PDL1 +
Anti-CD4 & CD8

Supplementary Fig S5:

PD-L1 blockade increases PD-1 expressing T cells and effector function



Supplementary Fig S6.

Gating strategy for flow cytometry analysis.

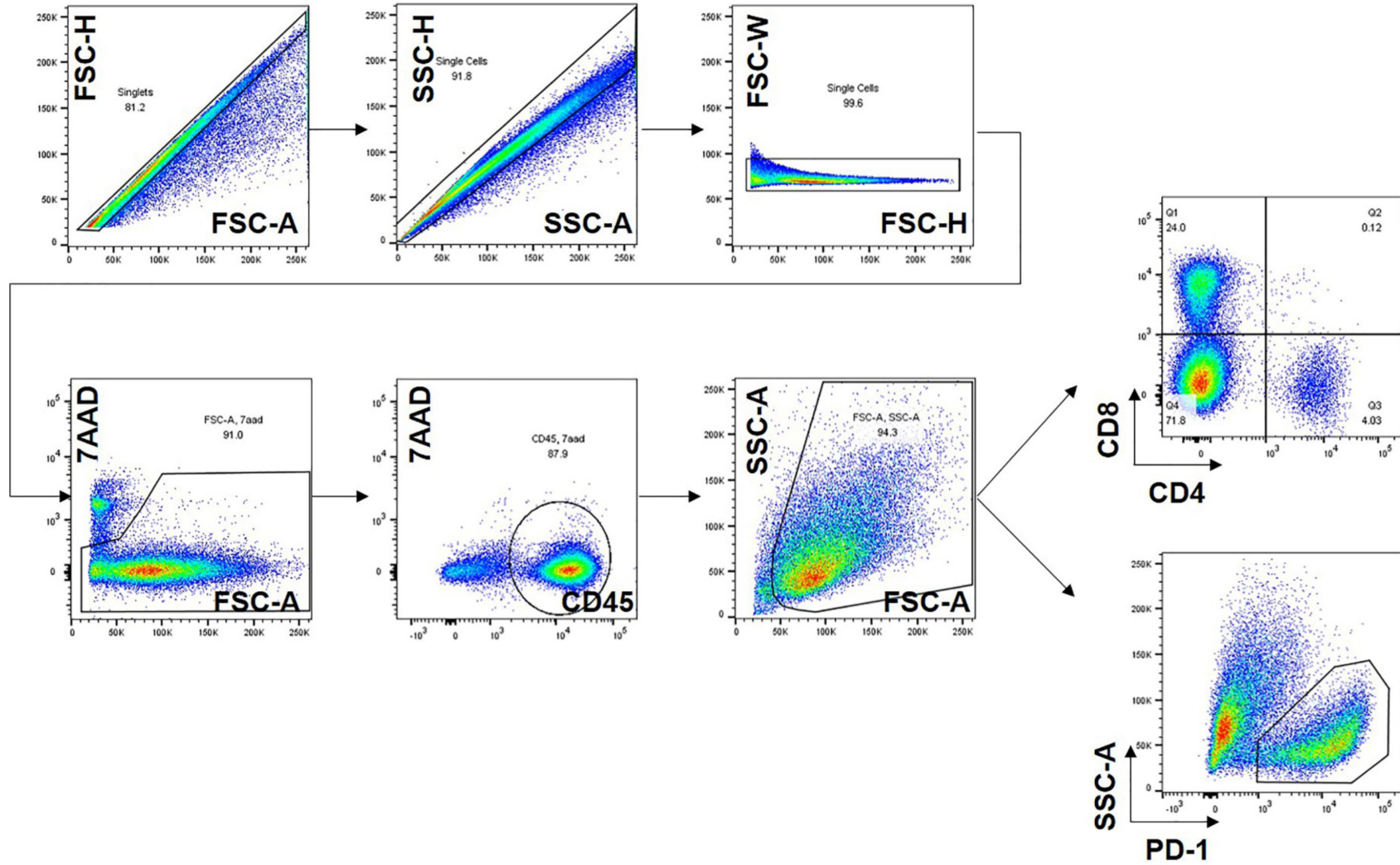


Fig. 3A

Fig. 3D

Supplementary Table S1:

Effects of treatment with antibodies to PD-L1, CD4 and CD8 on C4d deposition kidneys 6 days after transplantation.

Treatment		Peritubular Capillaries*					Glomerulus*
Anti-CD4/CD8**	Anti-PD-L1***	n	Diffuseness	Intensity	Dilatation/ loss vascular integrity	Margination	Glomerular capillaries
No	Control Ig	5	1.6 +/- 0.6	1.6 +/- 0.6	1.6 +/- 0.6	1.8 +/- 0.5	1.7 +/- 0.7
No	Anti-PD-L1	5	1.8 +/- 0.5	1.6 +/- 0.6	1.4 +/- 0.6	1.8 +/- 0.5	1.6 +/- 0.6
Control Ig	Anti-PD-L1	8	1.9 +/- 0.7	2.1 +/- 0.8	2.1 +/- 1.1	1.9 +/- 0.8	2.3 +/- 0.7
CD4	Anti-PD-L1	3	1.7 +/- 1.2	2.0 +/- 1.0	1.3 +/- 1.2	1.3 +/- 1.2	1.7 +/- 1.2
CD8	Anti-PD-L1	3	2.0 +/- 0.0	2.3 +/- 0.6	1.7 +/- 1.2	2.0 +/- 1.0	2.7 +/- 0.6
CD4+CD8	Anti-PD-L1	3	0.7 +/- 0.3	1.0 +/- 0.9	0	0	1.2 +/- 0.8

* Average of 0 to 3 score +/- standard deviation

** Monoclonal antibodies to CD4 (GK1.5, YTS91) and CD8 (53-6.7, YTS169.4) were administered on days 0 and 3 after transplantation to deplete T cells.

*** Monoclonal antibody to PD-L1 (10F.9G2) or isotype control IgG (LTF-2) was administered on days 3 and 5 after transplantation.