

Supplementary**Table S1** Demographic information for patients with biopsy-confirmed recurrence of focal segmental glomerulosclerosis (FSGS) after transplant included in the study

Demographic	Patient 1	Patient 2	Patient 3
Age (years)	31	21	51
Gender	M	F	M
Ethnicity	Caucasian	Caucasian	Asian
Living/deceased donor	Deceased	Living	Living
No. of days before recurrence of FSGS post Tx	Immediately	7	195
Maintenance Immunosuppression		Simulect, MMF/MPA	Simulect, TAC/MMF
Maximum protein/creatinine at the time of recurrence		11,078	375
Lowest Serum Albumin at the time of recurrence		5.44	0.91

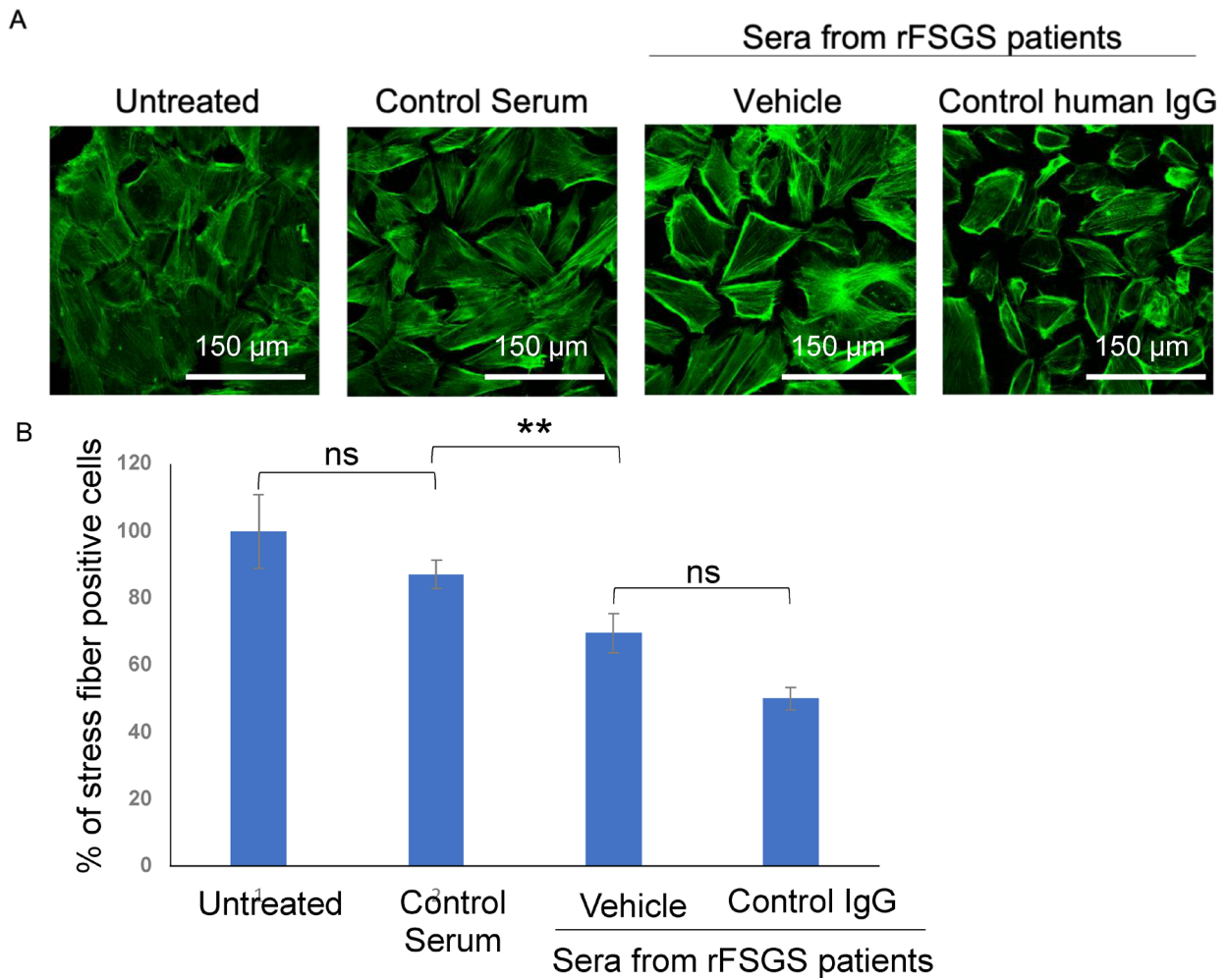


Figure S1 Treatment with sera from different patients with recurrence of focal segmental glomerulosclerosis (rFSGS) causes injury in podocytes which is not affected by treatment with a control human IgG. (A) A representative image showing intact stress fibers in podocytes after treatment with sera from control patients (end-stage renal disease due to non-FSGS causes). However, sera from rFSGS patients lead to stress fiber loss which cannot be rescued by a control human IgG. (B) Quantification of stress fibers positive cells shows a significant reduction in the number of stress fiber positive podocytes after treatment with sera from rFSGS patients compared to that in control sera-treated podocytes and remains unchanged after pretreatment with control IgG. ns, not significant. ** $P < 0.05$.

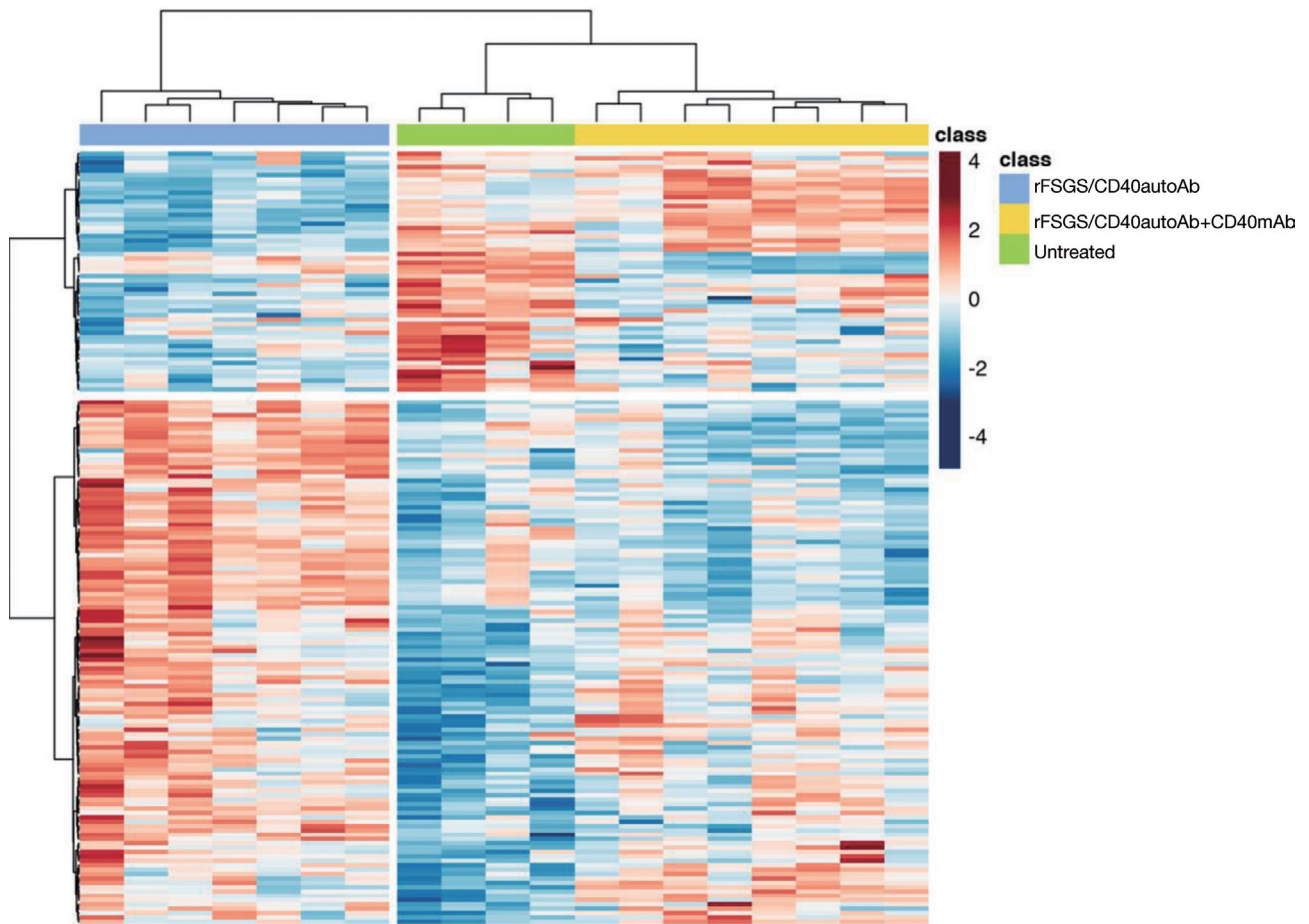


Figure S2 Anti-CD40 antibody derived from focal segmental glomerulosclerosis (FSGS) patients with recurrence of FSGS after renal transplantation (rFSGS/CD40autoAb) causes injury to podocytes via a CD40-mediated pathway as it can be blocked by a commercial monoclonal anti-CD40 antibody (CD40mAb).