

Supplemental figure 1. Early hallmarks of the alloreactive 4C T cell response and cytokine production regulation by Dll1/4 blockade. (A-B) BALB/c-CD45.1 and B6-SJL mice were lethally irradiated (8 Gy and 12 Gy, respectively) and transplanted with B6 WT TCD BM and 5×10^{6} 4C T cells, with lymphoid organs harvested on day 1.5 for flow cytometric analysis. (A) Gating strategy to identify 4C T cells. (B) Percentage of 4C T cells expressing the activation markers CD25, CD69, and CD44 retrieved from syngeneic (B6-SJL) and allogeneic (BALB/c) recipients (*p < 0.001, Student's t-test). CD25 and CD69 upregulation were specific to alloantigenmediated T cell activation, while CD44 expression was also increased after transfer into irradiated syngeneic recipients. (C-F) Irradiated BALB/c mice were transplanted with B6 WT TCD BM and a mixture of 4C (alloreactive) and BALB/c (syngeneic) T cells before analyses on day 1.5 posttransplantation. (C) Experimental design. (D-E) 4C, but not BALB/c T cells showed increased cell size (FSC-A) and granularity (SSC-A), hallmarks of alloantigen-driven activation. (F) Robust alloantigen-driven proliferation occurred early post-transplant with faster kinetics than homeostatic proliferation. *p < 0.001, Student's t-test. Data are representative of at least 2 experiments with 10 animals per group. (G-H) Lethally irradiated BALB/c mice were transplanted with TCD BM supplemented with 2×10^3 4C T cells and treated with isotype control or anti-Dll1/4 antibodies on day 0. Animals were sacrificed 5 days after allo-HCT and peripheral blood and mesenteric lymph nodes retrieved for assessment of cytokine production. Notch blockade led to impaired cytokine production in 4C Tconv in peripheral blood (G) and mesenteric lymph nodes (**H**). *p < 0.05, Student's t-test.



Figure S2. Alloantigen-driven T cell response promotes mTORC1 and Ras/MPAK activation. Irradiated BALB/c mice were transplanted with B6 WT TCD BM and a mixture of 5×10^6 4C (alloreactive) and 5×10^6 BALB/c (syngeneic) T cells before analysis 24 hours post-transplantation. Representative histogram plots (A) and cumulative data (B) showing the abundance of phosphorylated S6 (S235/S236 and S240/S244 residues) and pERK1/2 in alloreactive 4C and syngeneic BALB/c T cells retrieved from spleens and lymph nodes of transplanted BALB/c mice. *p < 0.05, Student's t-test.

Antigen	Clone	Vendor	Antigen	Clone	Vendor
H-2Kb	AF66-88.5	Biolegend	Phospho-Akt (Ser473)	D9E	Cell Signaling Technologies
H-2Kd	SF1-1.1	Biolegend			
CD25	PC61	Biolegend			
CD4	GK1.5	Biolegend			
CD44	IM7	Biolegend	Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204)	D13.14.4E	Cell Signaling
CD45.1	A20	Biolegend			Technologies
CD69	H1.2F3	Biolegend			
CD8a	53.6-7	Biolegend			
CD90.1	OX-1	Biolegend	Phospho-S6 Ribosomal Protein (Ser235/236)	D57.2.2E	Cell Signaling
CD90.2	30-H12	Biolegend			Technologies
IFN-g	XMG1.2	Biolegend			
IL-17	TC11-18H10.1	Biolegend			
IL-2	JES6-1A12	Biolegend	Phospho-S6 Ribosomal Protein (Ser240/244)	D68F8	Cell Signaling
TNF-α	MP6-XT22	Biolegend			Technologies
Nur77	12.14	eBioscience			
Vß13	MR12-4	Biolegend			

Supplemental table I. Monoclonal antibodies used for flow cytometry analysis.