

Supplemental Figure 1: PIPKI γ 90 -/- CD4+ T cells exhibit increased proliferation in response to antigen stimulation.

OVA peptide expanded CD4+ cells were stained with 0.25 μ M CFSE and combined with irradiated splenocytes with 0 μ g/ml (A), 0.1 μ g/ml (B) or 1 μ g/ml OVA peptide (C). CFSE dilution was measured 72 hours following stimulation. The % of cells in each cell division was determined by ModFIT analysis. Data represent averages \pm SEM from 3 independent experiments $*=p<0.05$.

Supplemental Movie 1: GFP PIPKI γ 90 establishes diffuse membrane localization during T-cell:APC conjugation

D10 T cells overexpressing GFP-PIPKI γ 90 were imaged while interacting with conalbumin loaded CH12 cells. White arrow: GFP-PIPKI γ 90 reestablishes uropod localization following conjugation with antigen-loaded CH12 cells (red). Green Arrow: GFP-PIPKI γ 90 establishes a diffuse membrane localization following contact with antigen-loaded CH12 cell (red).

Supplemental Fig 1

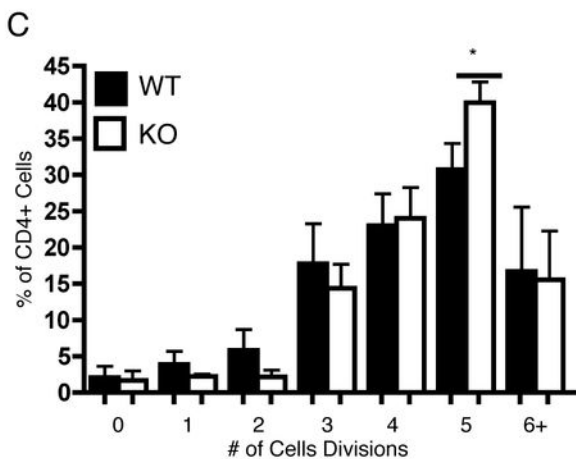
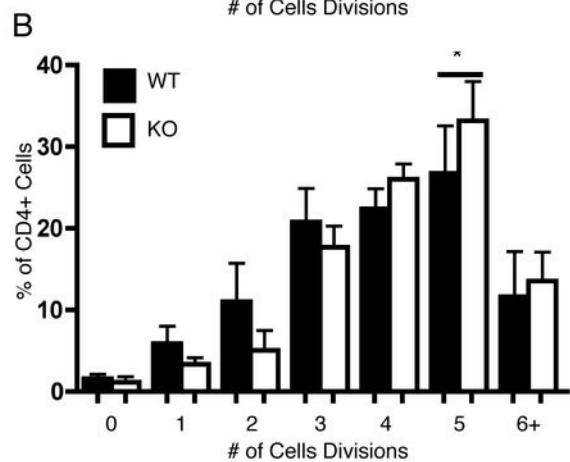
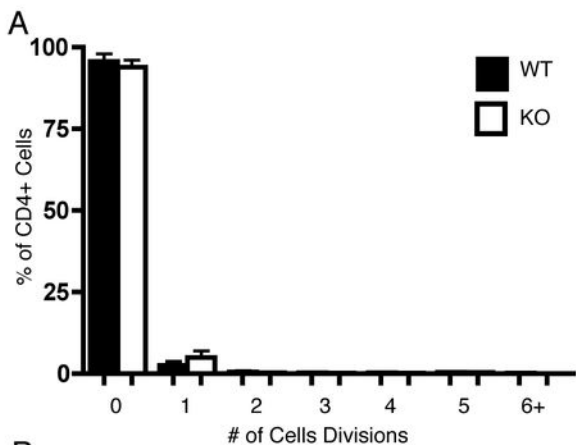


Table 1: Leukocyte populations in PIPKI γ 90^{-/-} mice

Tissue and Cell Populations	Number of Cells (10^6) ^{1,2}		P value ³
	Wild type	PIPKI γ 90 ^{-/-}	
Lymph Nodes			
Total	8.4 ± 0.9	5.6 ± 1.3	
CD3+	4.3 ± 0.7	3.14 ± 0.7	
CD4+	2.8 ± 0.6	2.1 ± 0.5	
CD8+	1.2 ± 0.1	0.9 ± 0.2	
B220+	2.1 ± 0.2	1.3 ± 0.4	P<0.1
CD11c+	0.7 ± 0.01	0.3 ± 0.1	P<0.05
CD11b+	0.02 ± 0.01	0.01 ± 0.01	
Peyer's Patches			
Total	8.9 ± 0.3	8.7 ± 1.6	
CD3+	1.5 ± 0.5	1.9 ± 0.7	
CD4+	1.2 ± 0.5	1.6 ± 0.7	
CD8+	0.3 ± 0.02	0.2 ± 0.03	
B220+	3.7 ± 0.5	3.5 ± 1.2	
CD11c+	0.7 ± 0.1	0.6 ± 0.2	
CD11b+	0.07 ± 0.06	0.02 ± 0.02	
Spleen			
Total	103 ± 6.9	110 ± 2.4	
CD3+	33 ± 1.2	32 ± 8.5	
CD4+	20 ± 1.1	20 ± 6	
CD8+	11 ± 0.5	10 ± 2.3	
B220+	38 ± 0.5	45 ± 9.7	
CD11c+	16 ± 4.4	14 ± 3.6	
CD11b+	0.2 ± 0.09	0.9 ± 0.8	
Blood			
Total	3.8 ± 0.9	5.6 ± 1.9	
CD3+	0.8 ± 0.09	0.7 ± 0.3	
CD4+	0.5 ± 0.09	0.4 ± 0.2	
CD8+	0.3 ± 0.03	0.3 ± 0.1	
B220+	1.5 ± 0.4	2.7 ± 1.2	
CD11c+	0.2 ± 0.1	0.3 ± 0.07	

¹ Cells from 2 inguinal and 2 cervical lymph nodes (Lymph Nodes), 3 Peyer's patches, spleen and blood were isolated from three, 5 month old knockout and littermate control OTII positive mice. Cell populations were determined by flow cytometry. Data are mean +/- SEM.

² For blood populations, units are cells per milliliter of blood

³ Probability was calculated using Student's T test.

CD11b+	0.2 ± 0.08	0.3 ± 0.04	
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