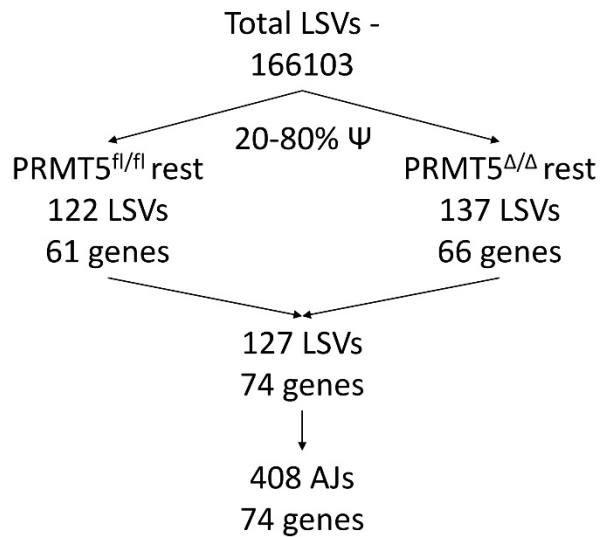
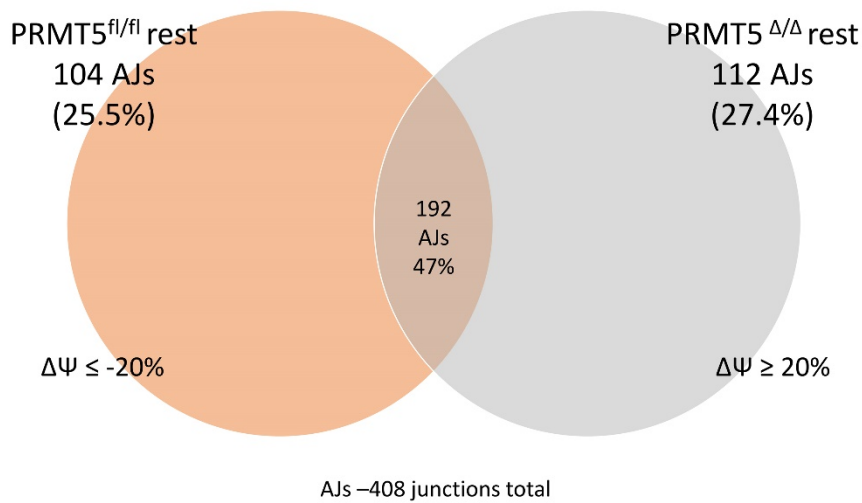


Supplemental Figure 1

A



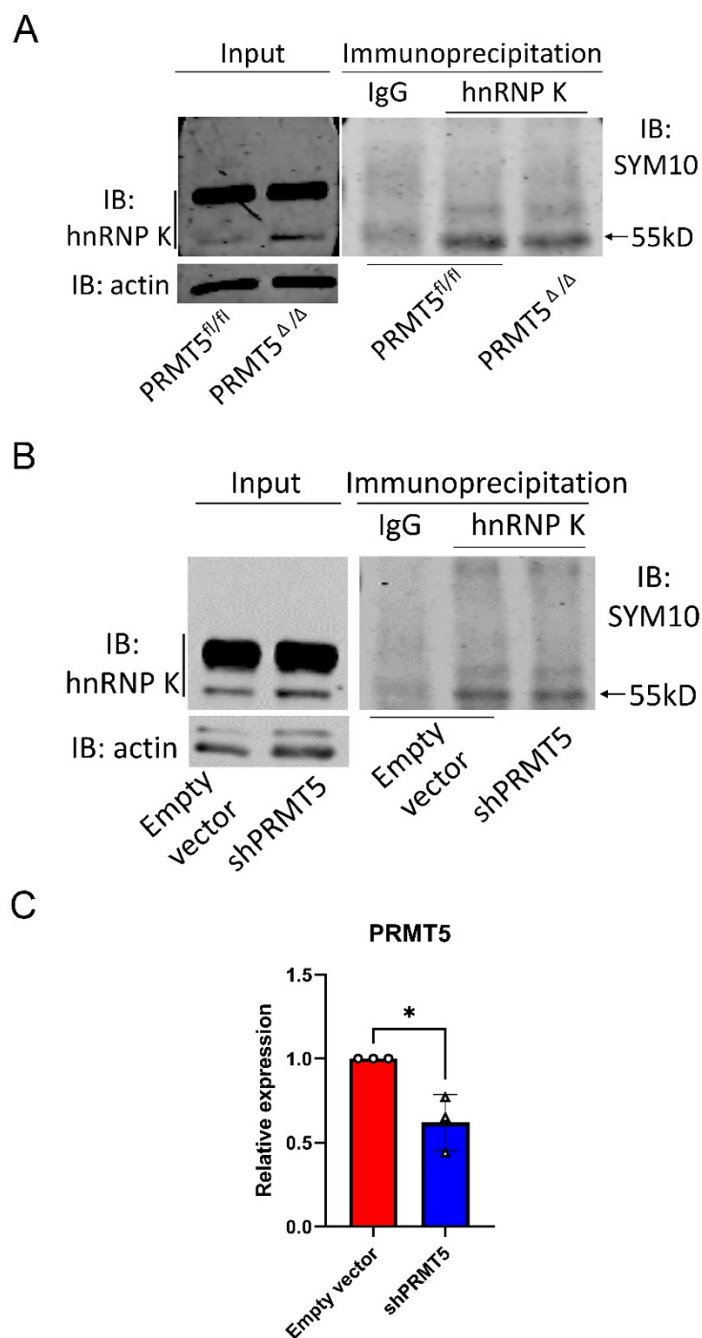
B



Supplemental Figure 1. MAJIQ calculated AJs in resting iCD4-PRMT5^{fl/fl} or iCD4-PRMT5^{Δ/Δ} CD4⁺ T cells

(A) Workflow identifying significantly utilized AJs by comparing LSVs in resting iCD4-PRMT5^{fl/fl} or iCD4-PRMT5^{Δ/Δ} CD4⁺ T cells. LSVs with at least two or more exon junctions within the 20-80% percent spliced index (Ψ) of reads were calculated. 127 LSVs were observed for the wild-type iCD4-PRMT5^{fl/fl} resting vs iCD4-PRMT5^{Δ/Δ} resting comparison. (B) Allocation of LSVs with two or more AJs in iCD4-PRMT5^{fl/fl} resting (orange) and iCD4-PRMT5^{Δ/Δ} activated (grey) groups. Shift in AJ usage is denoted as the difference in Ψ ($\Delta\Psi$) and is set at a minimum of 20% between conditions. 104 AJs are PRMT5^{fl/fl} specific and 112 AJs are PRMT5^{Δ/Δ} specific.

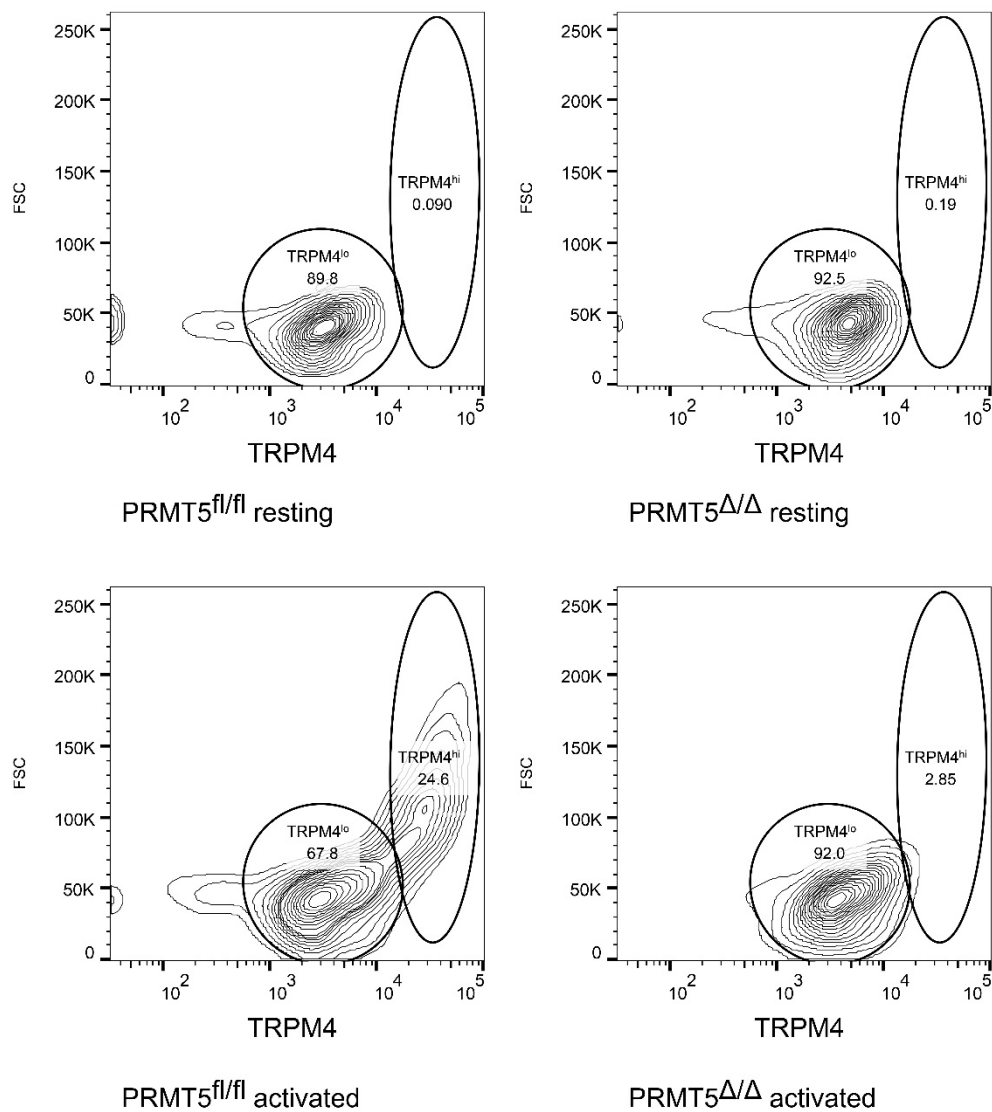
Supplemental Figure 2



Supplemental Figure 2. PRMT5 methylation of HNRNP K

(A) SYM10 immunoblot in 48hr activated CD4⁺ T cells from iCD4-PRMT5^{fl/fl} and iCD4-PRMT5^{Δ/Δ} mice after IP of HNRNP K. Note that, despite a non-specific band above, the band corresponding to HNRNP K is observed at 55kDa. The ratio of SDM hnRNP K to total hnRNP K is quantified in main Fig. 2. Data representative of 3 independent experiments. (B) Jurkat cells with shRNA for PRMT5 were used in a hnRNP K IP and SYM10 IB. Empty vector is a scramble shRNA control. Band corresponding to hnRNP K is observed at 55kDa. The ratio of SDM hnRNP K to total hnRNP K is quantified in main Fig. 2. Data representative of 3 independent experiments (C) Quantification of PRMT5 levels in the shPRMT5 samples compared to empty vector control.

Supplemental Figure 3



Supplemental Figure 3. TRPM4 channel expression in iCD4-PRMT5^{fl/fl} and iCD4-PRMT5^{Δ/Δ} T cells

Resting and activated CD4⁺ T cells from iCD4-PRMT5^{fl/fl} and iCD4-PRMT5^{Δ/Δ} mice were first gated for lymphocytes and for positive TRPM4 stain within the lymphocyte gate. Representative contour plots of the data quantified in main Figure 3.