Decline in miR-181a expression with age impairs T cell receptor sensitivity by increasing DUSP6 activity

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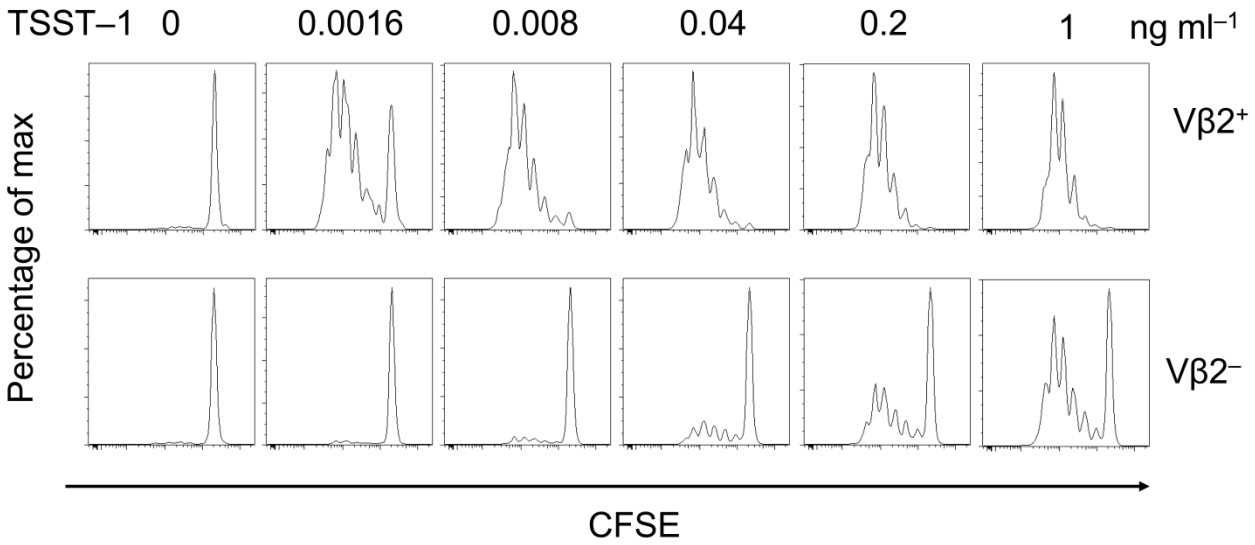
Supplementary Figure 1



Supplementary Figure 1. Responses of Vβ2$^+$ or Vβ2$^-$ CD4 naïve T cells to TSST-1. CD4 naïve T cells were labeled with 5 μM of carboxy-fluorescein diacetate succinimidyl ester and cocultured with mDCs loaded with TSST-1 at the doses indicated. CFSE dilutions in Vβ2$^+$ or Vβ2$^-$ CD4 naïve T cells were determined on day 4.

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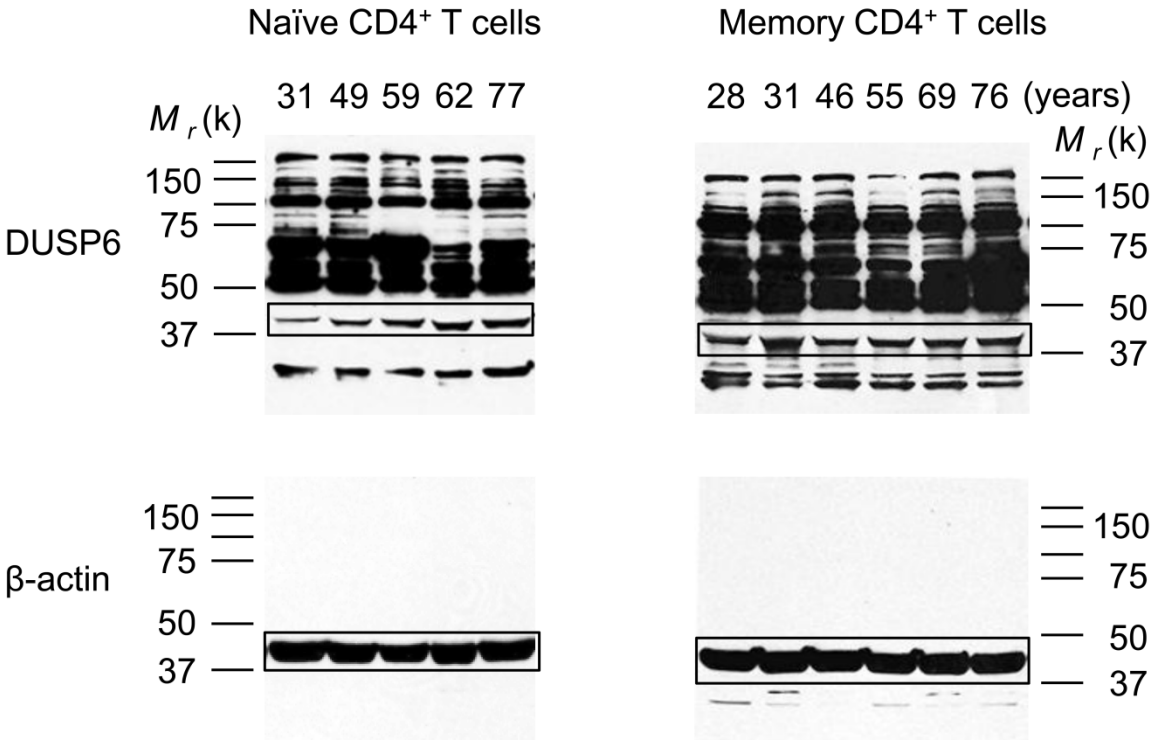
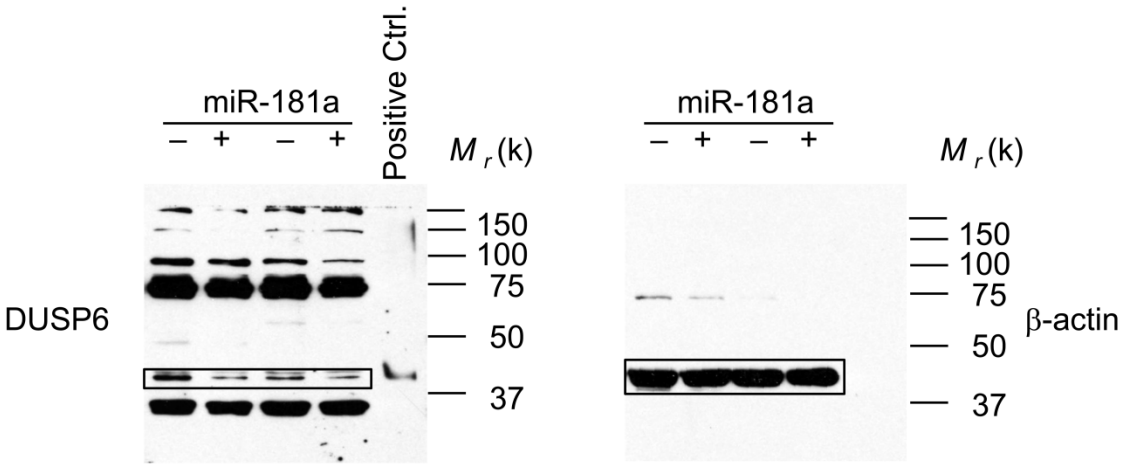
Supplementary Figure 2



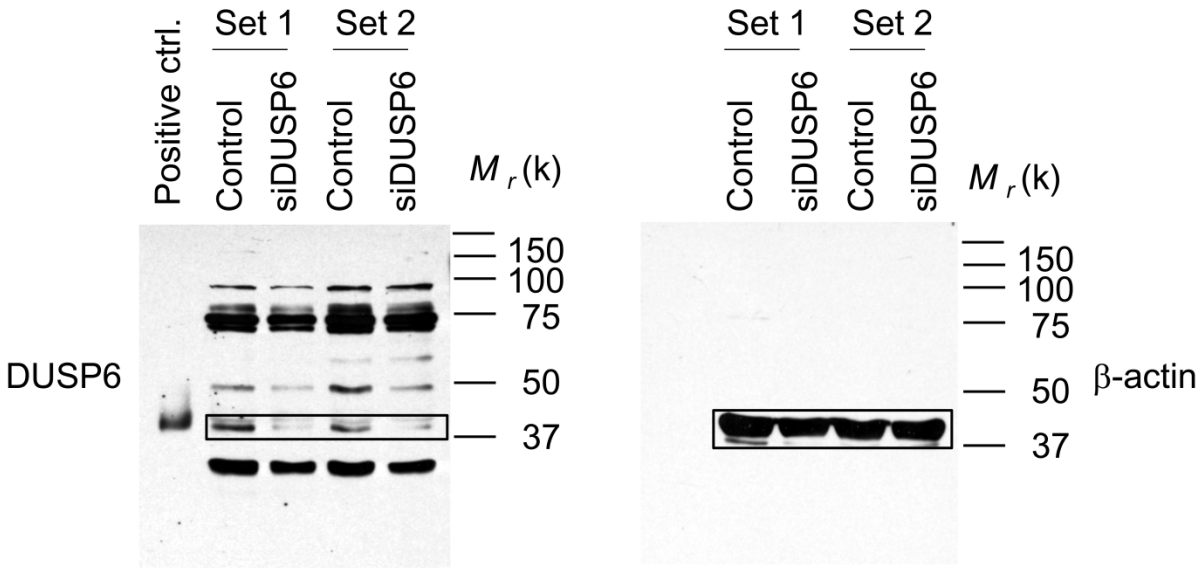
Supplementary Figure 2. Full scans of the Western blots cropped in Fig. 3c. Anti-DUSP6 Ab from Santa Cruz Biotechnology, Inc. was used.

Supplementary Figure 3



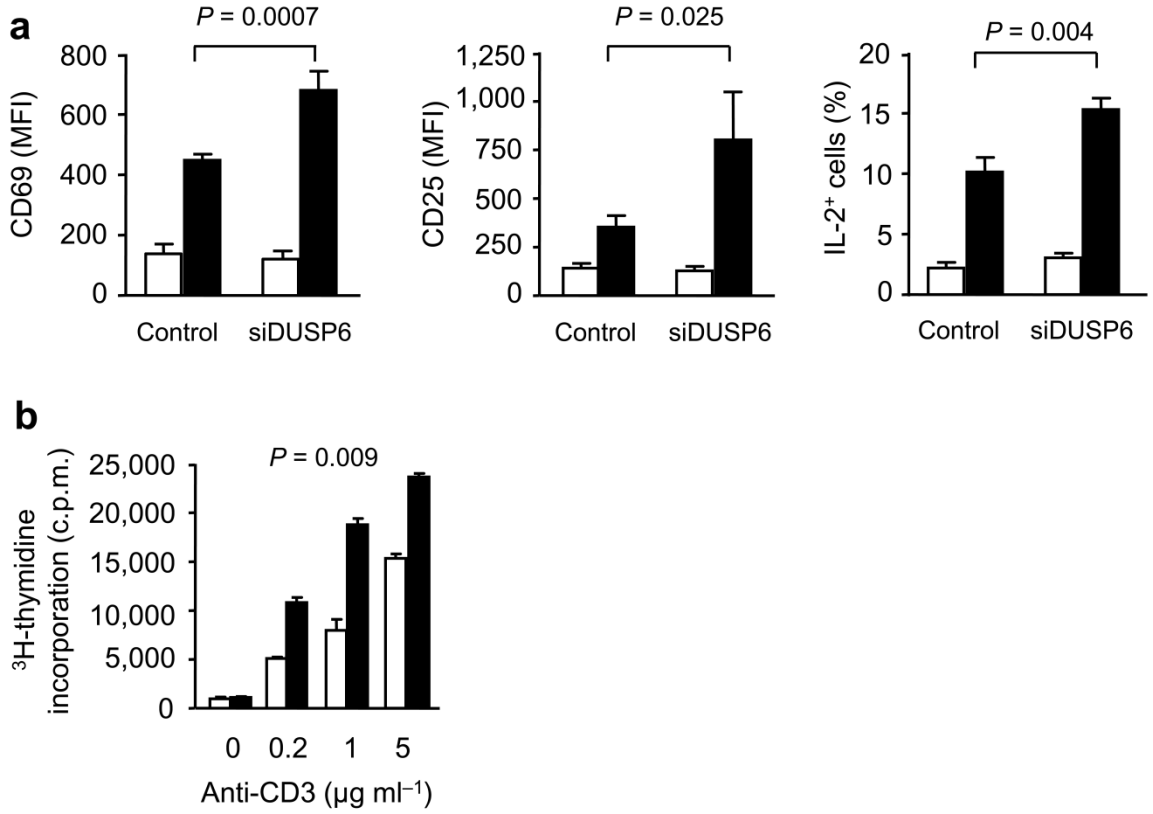
Supplementary Figure 3. Full scans of the Western blots cropped in Fig. 5b. Anti-DUSP6 Ab from OriGene Technologies was used.

Supplementary Figure 4



Supplementary Figure 4. Full scans of the Western blots cropped in Fig. 7a. Anti-DUSP6 Ab from OriGene Technologies, siDUSP6 pool and negative control siRNA from Thermo Fisher Scientific (set 1) or siDUSP6 from OriGene Technologies and universal scrambled negative control siRNA (set 2) were used.

Supplementary Figure 5



Supplementary Figure 5. DUSP 6 silencing augments activation of elderly CD4 T cells.

Results shown in Fig. 6 were confirmed by a second DUSP6 siRNA. (**a**) CD4 T cells transfected with siDUSP6 (OriGene Technologies) or control siRNA were left unstimulated (open bars) or stimulated by CD3/CD28 cross-linking (closed bar), CD69, CD25 and IL-2 expression are shown as mean ± SEM of five 60-80 year-old individuals. (**b**) Proliferation of CD4 T cell from elderly adults after DUSP6 silencing (solid bars) was measured by ^{3}H thymidine incorporation. One experiment representative of three is shown.