

ADAM17-dependent proteolysis of L-selectin promotes early clonal expansion of cytotoxic T cells

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This paper is dedicated to Graham Preece who died on 11th November 2018.

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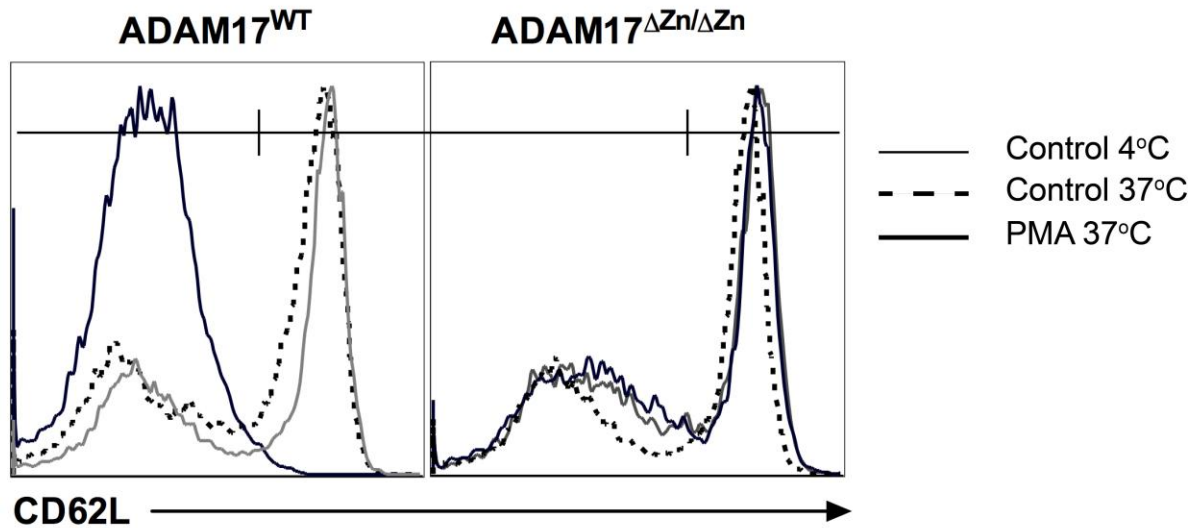
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Supplementary Figure 1, related to Figure 1. Effect of ADAM17 on L-selectin expression by T-cells under homeostatic and activating conditions.

ADAM17-sufficient (ADAM17^{WT}) and ADAM17-deficient (ADAM17^{ΔZn/ΔZn}) T-cells harvested from peripheral lymph nodes of RAG-1-deficient haematopoietic stem cell chimeric mice were incubated at 4 °C or 37 °C in the absence or presence of 300nM PMA. Cell surface expression of L-selectin (CD62L) was analyzed by flow cytometry. Representative histograms show overlays of treatments and gating of L-selectin (CD62L) positive T-cells.

Mouse ID	ADAM 17	Background	F5 TCR	Wildtype L-selectin	LΔP transgene	Thy
ADAM17 ^{WT}	+/+ or +/-	B6 RAG-1 ^{-/-} chimera	none	+/+	none	Thy1.2
ADAM17 ^{ΔZn/ΔZn}	-/-	B6 RAG-1 ^{-/-} chimera	none	+/+	none	Thy1.2
ADAM17 ^{WT}	+/+ or +/-	B6 L-selectin ^{-/-} chimera	none	+/+	none	Thy1.2
ADAM17 ^{ΔZn/ΔZn}	-/-	B6 L-selectin ^{-/-} chimera	none	+/+	none	Thy1.2
DBA	+/+	DBA	none	+/+	none	Thy1.2
ADAM17 ^{ΔZn/ΔZn} DBA	-/-	DBA	none	+/+	none	Thy1.2
F5/B6	+/+	B6	hemizygous	+/+	none	Thy1.2
F5/LΔP	+/+	B6	hemizygous	-/-	hemizygous	Thy1.2
LΔP	+/+	B6	none	-/-	hemizygous	Thy1.2
C57BL/6 (B6)	+/+	B6	none	+/+	none	Thy1.2
Thy1.1	+/+	B6	none	+/+	none	Thy1.1

Supplementary Table 1. Genotype of mouse strains used.

Cell line ID	Species	Cell type	TCR	Wildtype L-selectin	L-selectin transgene
L-selectin	Human	Molt3	868	-/-	Wildtype human L-selectin
Δ M-N	Human	Molt3	868	-/-	Shedding-resistant human L-selectin
F5/B6	Mouse	CD8 ⁺ naïve or CTL	F5	+/+	none
F5/L Δ P	Mouse	CD8 ⁺ naïve or CTL	F5	-/-	Shedding-resistant mouse L-selectin

Supplementary Table 2. Genotype of T cells used.