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# 2 Supplementary figure 1

3 (A-D) Mice were immunized with AS15 peptide in Alhydrogel (AH) or emulsified in
4 IFA or CFA and draining lymph nodes (dLN) were harvested at the indicated time points.
5 (A) Frequencies and (B) total numbers of AS15 MHCII tetramer<sup>+</sup> cells within the CD4<sup>+</sup>

Foxp3<sup>-</sup> CD44<sup>hi</sup> population. (C) Frequencies and (D) total numbers of  $CXCR5^+$  Bcl6<sup>+</sup> Tfh 1 cells within the tetramer<sup>+</sup> population cells. (E-H) Mice were immunized with AS15, 2 ESAT6 or Ag85b peptides emulsified in IFA. (E) Representative flow cytometry plots, 3 (F) frequencies and (G) total numbers of the respective MHCII tetramers staining. (H) 4 5 Frequencies of CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells within the tetramer<sup>+</sup> populations. Data shown are 6 representative of 2 experiments where each dot represents an individual mouse. Data 7 were analysed using the non-parametric Mann-Whitney test.; ns: not significant.; 8 \*P<0.05



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### 2 Supplementary figure 2

(A-B) WT mice were immunized with 4μg, 20μg or 100μg of AS15 peptide emulsified in
IFA. (A) Frequencies of AS15 MHCII tetramer<sup>+</sup> cells within the CD4<sup>+</sup> Foxp3<sup>-</sup> CD44<sup>hi</sup>
population and (B) frequencies of CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells within the tetramer<sup>+</sup>
population cells. (C-E) WT mice were immunized with Ag85 protein emulsified in IFA
(S.C.: sub-cutaneously), Montanide ISA 51 VG<sup>TM</sup> (ISA51) and Montanide ISA 720

VG<sup>TM</sup> (ISA720) (I.M.: intra-muscularly). (C) Representative flow cytometry plots, 1 frequencies of Ag85b MHCII tetramer<sup>+</sup> cells within the CD4<sup>+</sup> Foxp3<sup>-</sup> CD44<sup>hi</sup> population 2 and (E) frequencies of  $CXCR5^+$  Bcl6<sup>+</sup> Tfh cells within the tetramer<sup>+</sup> population cells. (F) 3 WT and  $Tcra^{-/-}$  mice were immunized S.C. with 10µg Ag85b protein emulsified in IFA 4 5 and anti-Ag85b antibody were measured in the serum on day 14 (grey bars) and on day 6 72 (black bars). For day 72 titers, mice received an I.P. immunization with 10µg Ag85b 7 protein emulsified in IFA on Day 21. Data shown are representative of 2 experiments 8 where each dot represents an individual mouse.



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# 2 Supplementary figure 3

WT, mature B cell deficient *muMT<sup>-/-</sup>*, *Il6<sup>-/-</sup>*, *Il12p40<sup>-/-</sup>*, Stat1 flox/flox CD4<sup>CRE</sup> or Stat3
flox/flox CD4<sup>CRE</sup> mice were immunized with AS15 peptide emulsified in IFA.
Frequencies of (A, C, E, G) AS15 MHCII tetramer<sup>+</sup> cells within the CD4<sup>+</sup> Foxp3<sup>-</sup> CD44<sup>hi</sup>

population and of (**B**, **D**, **F**, **H**) CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells within the tetramer<sup>+</sup> population. 1 (I-J) WT and  $Mvd88^{-/-}$  mice were immunized with AS15 peptide emulsified in IFA or 2 CFA and dLNs were harvested 10-14 days later (I) Total numbers of AS15 MHCII 3 tetramer<sup>+</sup> cells and (J) of tetramer<sup>+</sup> CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells. (K) WT and  $Mvd88^{-/-}$  mice 4 5 were immunized with AS15 peptide emulsified in IFA and dLNs were harvested 6 or 12 davs later. Histograms show the frequency of tetramer<sup>+</sup> CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells. (L) 6 WT.  $Mvd88^{-/-}$  and  $Ifnar^{-/-}$  mice were immunized with Ag85b protein emulsified in IFA 7 and dLNs were harvested 12 days later. Histograms show the frequency of tetramer<sup>+</sup> 8  $CXCR5^+$  Bcl6<sup>+</sup> Tfh cells. (M) Frequencies of  $CXCR5^+$  Bcl6<sup>+</sup> Tfh cells within the 9 tetramer<sup>+</sup> population from separate experiments using IFA-immunized WT,  $Tlr4^{-/-}$ , 10  $Tlr5^{-/-}$ ,  $Tlr9^{-/-}$ ,  $Tlr2^{-/-}$ ,  $Il18^{-/-}$  or  $Il1r1^{-/-}$  mice as well as antibiotic-treated WT animals 11 12 (ABX). Data shown are representative of 2-3 experiments where each dot represents an 13 individual mouse. Data were analysed using the non-parametric Mann-Whitney test.; ns: 14 non significant; \*P<0.05; \*\*P<0.01; \*\*\*P<0.001.

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CFA

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(A) WT or  $Myd88^{-/-}$  inguinal LNs from naïve mice or 10 days after AS15 peptide emulsified in IFA were harvested and the levels of *Ifna* and *Ifnb* mRNA was quantified by qPCR and expressed as fold increase over their receptive expressions of HPRT. (B) WT and *Ifnar*<sup>-/-</sup> mice were immunized with AS15 peptide emulsified in IFA and dLNs were harvested 6 or 12 days later. Histograms show the frequency of tetramer<sup>+</sup> CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells. (C-G) WT/*Ifnar*<sup>-/-</sup> mixed-bone marrow chimera mice were immunized

8 with AS15 in IFA (C-D) or CFA (E-G) and the dLN collected after 12 days. The frequencies of WT (white dots) and *Ifnar*<sup>-/-</sup> (grey dots) of (C) activated CD44<sup>hi</sup> cells, (D-9 E) AS15 MHCII tetramer<sup>+</sup> cells within the CD4<sup>+</sup> Foxp3<sup>-</sup> CD44<sup>hi</sup> population, (F) tetramer<sup>+</sup> 10  $CXCR5^+$  Bcl6<sup>+</sup> Tfh cells or (G) T-bet<sup>+</sup>,  $ROR\gamma T^+$  or Bcl6<sup>+</sup> within the tetramer<sup>+</sup> population 11 12 (with representative flow cytometry plots) are shown. Each line represents a single recipient animal. (H) WT,  $Trif^{-/-}$ ,  $Tlr3^{-/-}$ ,  $Ifih1^{-/-}$  (MDA5) and  $Tmem173^{-/-}$  (STING) 13 14 mice were immunized with AS15 peptide emulsified in IFA and the histograms show the 15 frequencies of tetramer<sup>+</sup> CXCR5<sup>+</sup> Bcl6<sup>+</sup> Tfh cells. Data shown are representative of 2 16 experiments where each dot represents an individual mouse. Data were analysed using 17 the non-parametric Mann–Whitney test.; ns: non significant; \*P<0.05; \*\*P<0.01.