Supporting Information
Supplementary Figure Legends

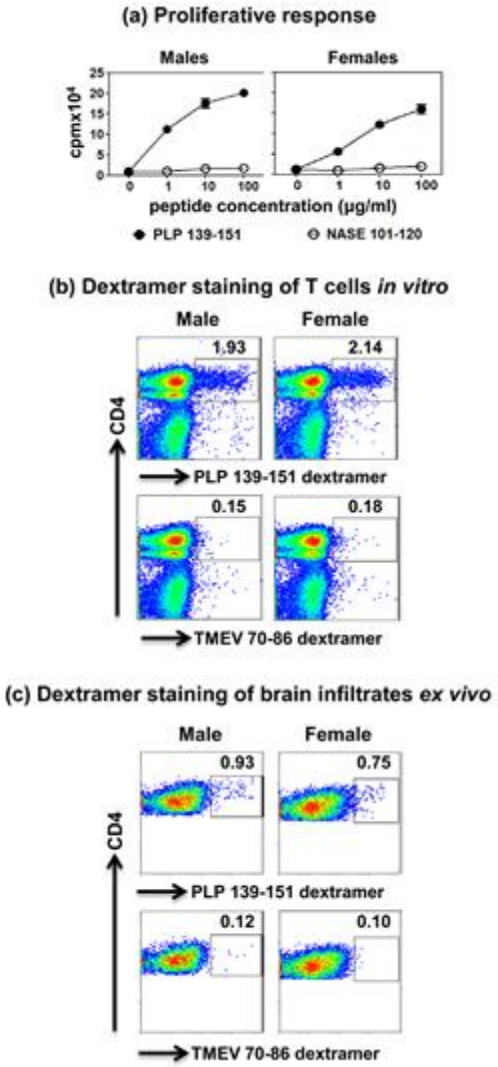

Figure S-1: Comparable T cell responses between male and female SJL mice. (a) Proliferative response.
Male and female SJL mice were immunized with PLP 139-151 emulsified in CFA, and after 10 days, animals were euthanized to harvest the draining lymph nodes to prepare LNCs. Cells were stimulated with PLP 139-151 or a control peptide (NASE 101-120) for two days, and after pulsing with [H] thymidine for 16 hours, cells were harvested to measure the proliferative responses as cpm. Mean ± SEM values from three experiments involving one mouse each are shown. **(b) Dextramer staining of T cells in vitro.** LNCs stimulated as above were maintained in IL-2 medium, and the viable cells harvested on day 6 poststimulation were stained with PLP 139-151 or control (TMEV 70-86) dextramers for two hours followed by staining with anti-CD4 and 7-AAD. After washing, cells were acquired by flow cytometry, and the percentages of dextramer$^+$ cells were determined in the live (7-AAD$^-$) CD4 T cell subset using FlowJo software. Flow cytometric density plots from one of the three experiments involving one to two mice each are shown. **(c) Dextramer staining of braininfiltrates ex vivo.** EAE was induced in male and female SJL mice by immunizing the animals with PLP 139-151 in CFA. The animals showing paralytic signs were euthanized and the brains were collected to harvest MNCs by percoll-gradient centrifugation method. Cells

were stained with PLP 139-151 or control dextramers followed by anti-CD4 and 7-AAD, and the percentages of dextramer+ cells in the live subset (7-AAD-) were then determined by flow cytometry as described above. Representative flow cytometric density plots from three experiments are shown.

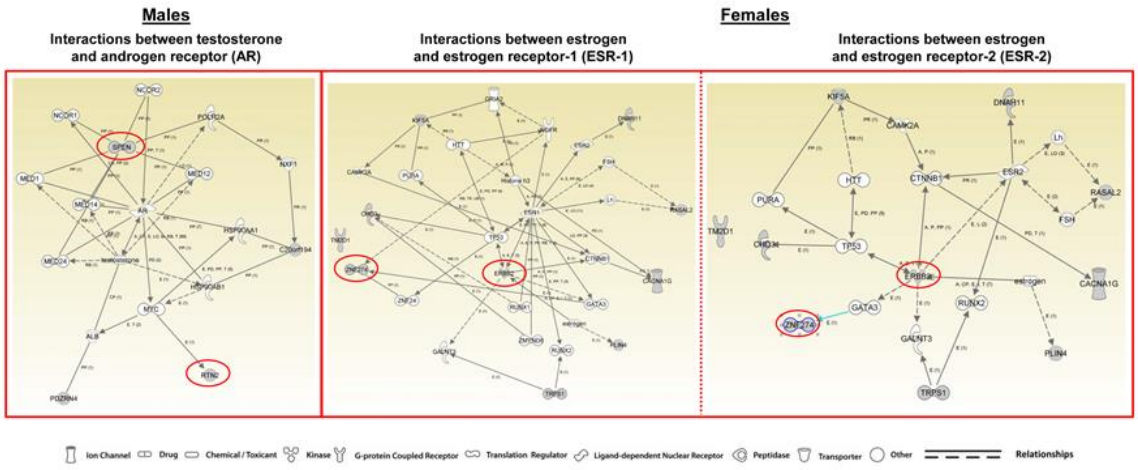

Figure S-2: Crisscross analysis of the uniquely expressed proteins between males and females by IPA.

Protein samples derived from PLP 139-151-specific T cells of male and female mice were subjected to MS/MS analysis, and spectral counts were obtained for a list of proteins. The proteins that were uniquely expressed in males (10) and females (4) were used to obtain networks corresponding to ESR-1 and ESR-2 and AR, respectively.