## Supplemental materials

Figure S1. Induction of Pd allergy in C57BL/6 mice.

(A) Ear swelling in Pd allergy-induced WT mice (n = 5). Values are means  $\pm$  SDs. \*\**P* < 0.01. Similar results were obtained in two independent experiments. (B) In Pd allergy-induced WT mice, CD4<sup>+</sup> and CD8<sup>+</sup> T cells in ear auricles were visualized by DAB, and these sections were counterstained with hematoxylin. Scale bar indicates 100 µm.

Figure S2. Isolation of CD8<sup>+</sup> T cells and CD4<sup>+</sup> T cells from SLN.

SLN cells were isolated at 24 hours after Pd challenge, and CD4<sup>+</sup> T cells and CD8<sup>+</sup> T cells were isolated using anti-CD4 mAb conjugated MACS<sup>®</sup> beads (Miltenyi Biotec, Bergisch Gladbach, Germany) in unsensitized-WT mice and sensitized-WT mice (n = 5). Presence of CD8<sup>+</sup> T cells (> 95%) or CD4<sup>+</sup> T cells (> 95%) was measured by flow cytometry, and the TCR repertoire was analyzed using a next generation sequencer.

Figure S3. Cell surface marker analysis of bone marrow-derived APCs.

(A) Untreated WT APCs, WT Pd-APCs, and WT LPS-APCs were stained with anti-F4/80 (CI:A3-1), anti-CD11b (M1/70), anti-CD80 (16-10A1), anti-CD86 (GL-1), anti-CD40 (3/23), and isotype-matched control mAbs and were examined by flow cytometry. (B) Using an anti-H-2K<sup>b</sup> (AF6-88.5), expression of MHC class I was compared among WT Pd-APCs, WT LPS-APCs, and B2m<sup>-/-</sup>Pd-APCs.

Figure S4. Illustration of APC adoptive transfer

CD11b<sup>+</sup> and F4/80<sup>+</sup> APCs from WT or B2m<sup>-/-</sup> mice were cultured with mM-CSF and treated with Pd + LPS or LPS and were then transferred to naïve WT mice.