Supplementary figures

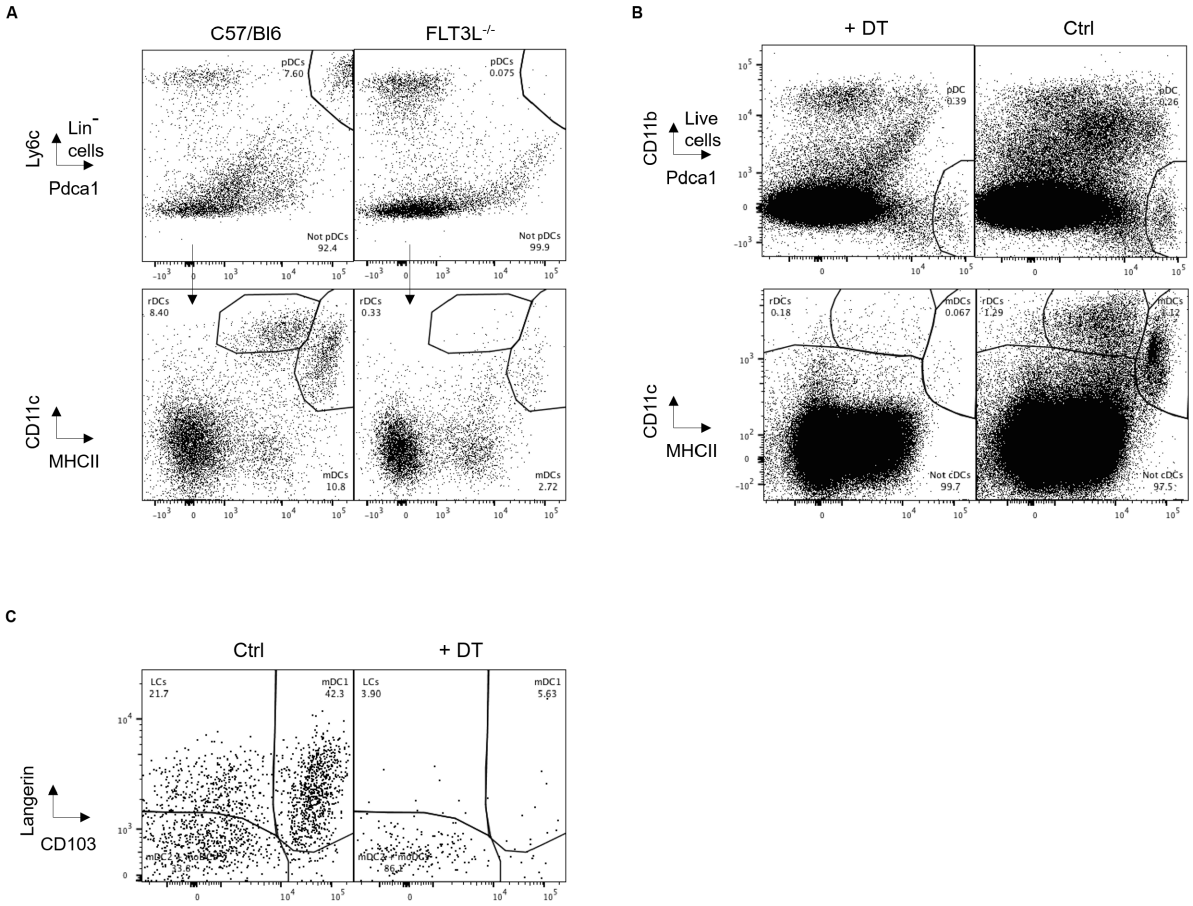

Figure S1. Lymph node depletion of dendritic cells in FLT3L$^{-/-}$ mice and zDC^{DTR} chimera after DT injection and Langerin^{+} cells in Langerin^{DTR} mice.

Cytometry analysis of lymph node cells in FLT3L-/- mice and control mice (A) and zDC^{DTR} chimera 24 hours after 1 injection of DT (B). (C) Depletion of Langerin+ cells in Langerin^{DTR} mice after DT injection compared to control mice without DT injection.

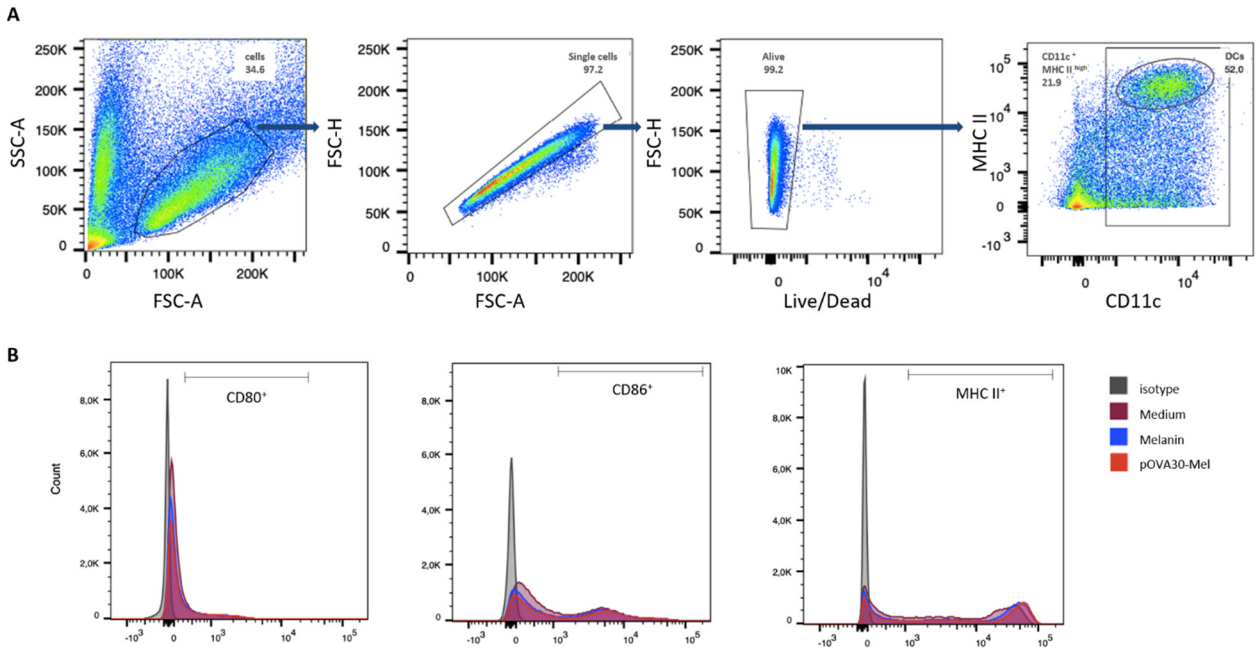

Figure S2. Effects of L-DOPA melanin and pOVA30-Mel nanoaggregates on maturation and activation of GM CSF dendritic cells.

Cytometry analysis of bone marrow derived dendritic cells (by GM CSF) after 24 hours incubation with melanin, pOVA30-Mel, or medium as negative control (5 x 10^5 cells/mL; 2 mL/well). Concentrations used for the different solutions: melanin at 4 µg/mL, pOVA30 at 2 µg/mL, CpG at 1 µg/mL. (A) Cells were gated on living cells or living $CD11c^+$ cells to assess the percentage of mature dendritic cells. (B) Representative MFI of CD80+ CD86+ or MHC II+ cells in the indicated conditions.

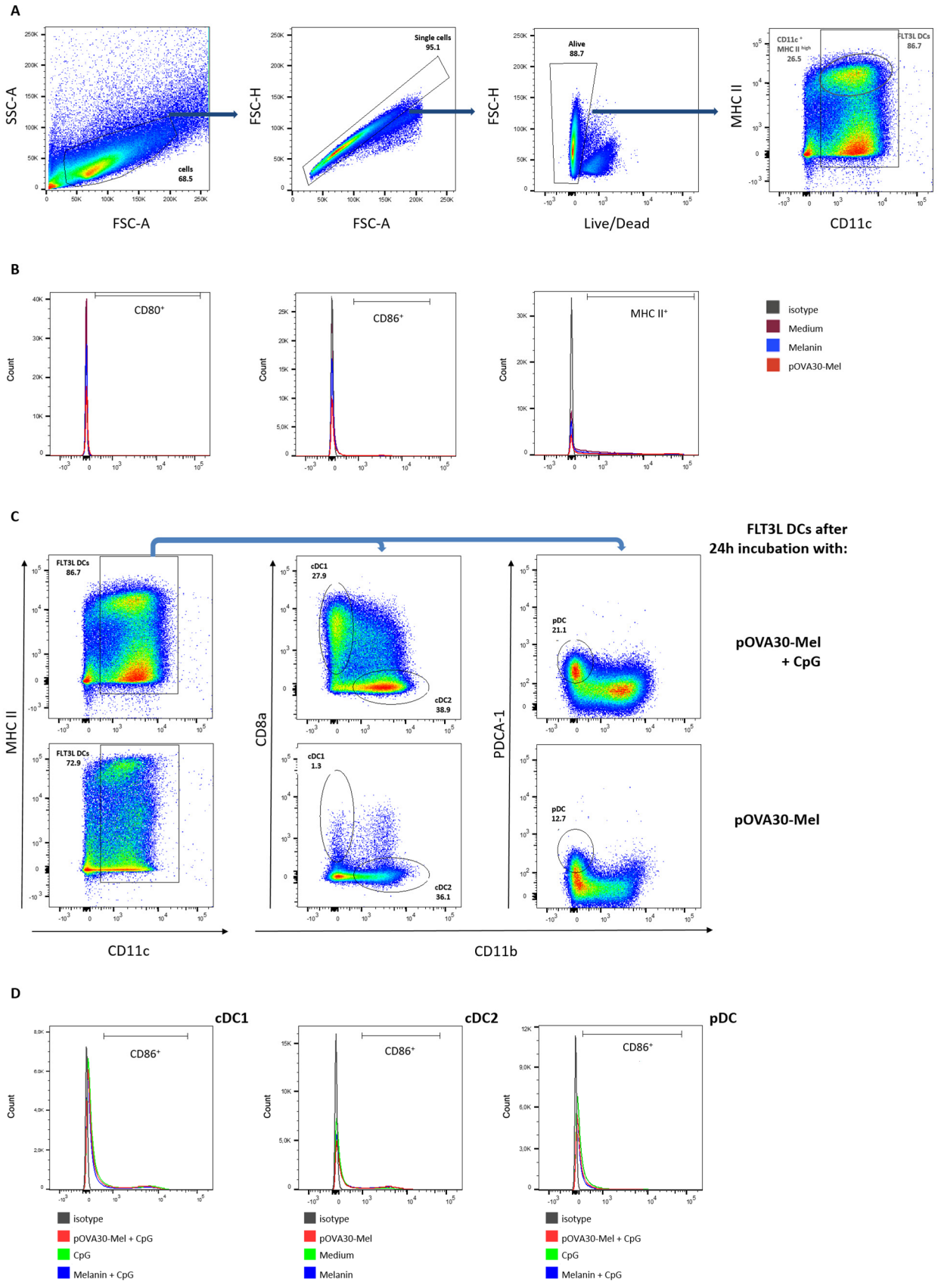

Figure S3. Effects of L-DOPA melanin and pOVA30-Mel nanoaggregates on maturation and activation of FLT3L DCs.

Cytometry analysis of cDC1, cDC2 and pDCs (FLT3L DCs) after 24 hours incubation with melanin, pOVA30, pOVA30-Mel, CpG, melanin and CpG, pOVA30 and CpG, pOVA30-Mel and CpG or medium as negative control (5 x 10^5 cells/mL; 2 mL/well). Concentrations used for the different solutions: melanin at 4 µg/mL, pOVA30 at 2 µg/mL, CpG at 1 µg/mL. (A) Cells were gated on living cells or living $CD11c^+$ cells to assess the percentage of mature dendritic cells or the expression of CD80, CD86 and MHC II as MFI (B). (C) Cells were gated on living double positive $CD11c^+$ $CD8\alpha^+$ and $CD11b^-$ cells (cDC1), double positive $CD11c^+$ $CD11b^+$ and $CD8\alpha^-$ cells (cDC2) or double positive $CD11c^+$ PDCA-1^+ and $CD11b^-$ cells (pDC) to assess the expression of CD80, CD86 and MHC II for each subpopulation (D). (B) and (D) report representative MFI of CD80+ CD86+ or MHC II+ cells in the indicated conditions and cell subtype.

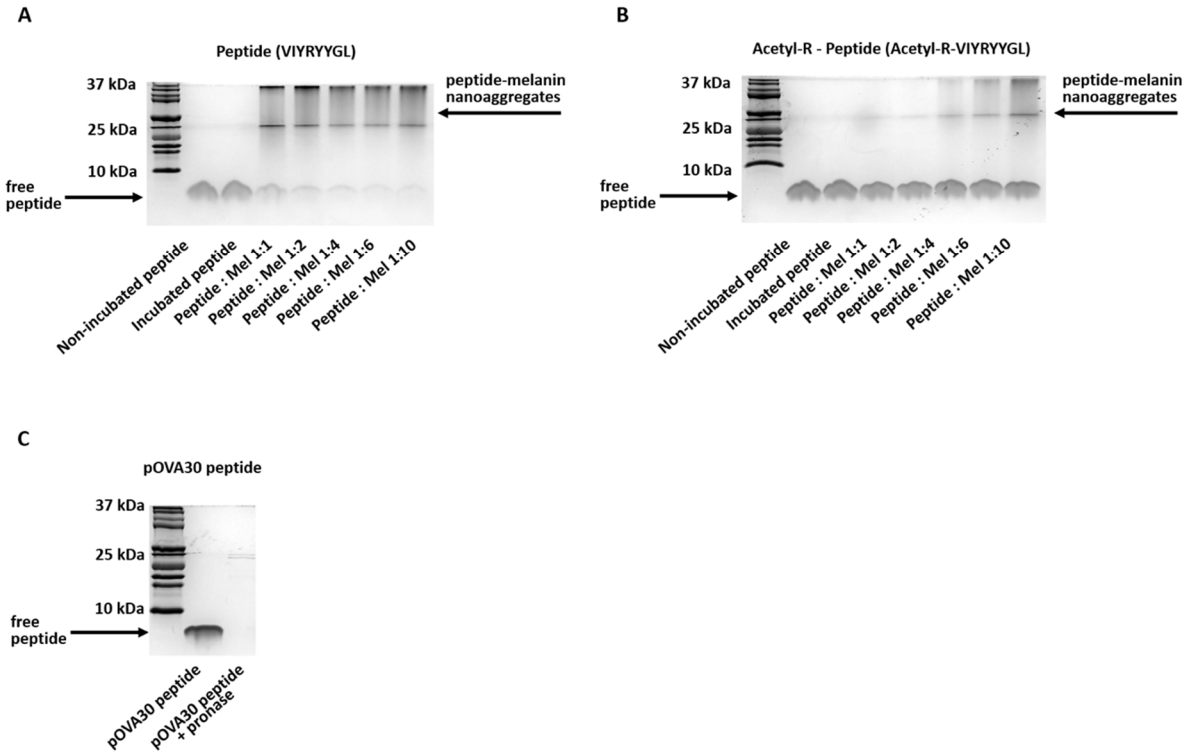

Figure S4. L-DOPA melanin protects pOVA30 peptide from enzymatic digestion
SDS-PAGE showing the migration of the indicated peptide within the resolving gel. (A, B) SDS-PAGE showing the peptide remaining (not bound to melanin, indicated as free peptide) after polymerization of L-DOPA at the indicated ratio peptide:melanin. The peptide-melanin nano-aggregates remain at the first phase of gel. Not-incubated peptide (extemporary) and incubated peptide (at the same conditions of the other solutions but without L-DOPA solution) represent controls. (C) SDS-PAGE showing the migration of pOVA30 peptide and its full digestion after incubation with pronase (peptide not visible).