

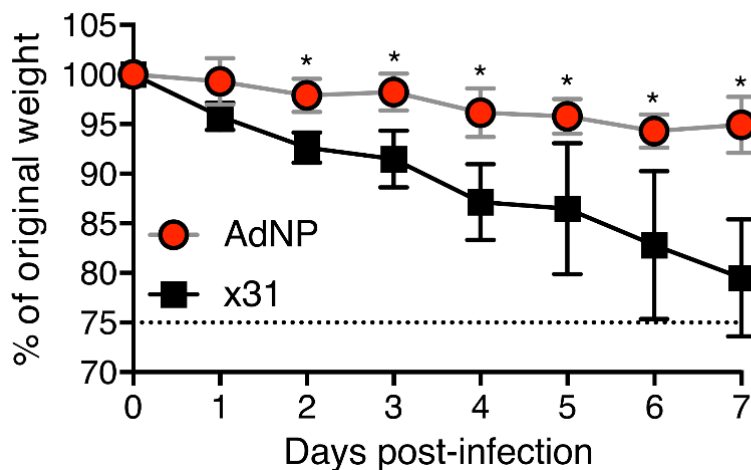
Supplementary Figure 1. AdNP generate long lasting lung and airway populations.

C57BL/6 mice were

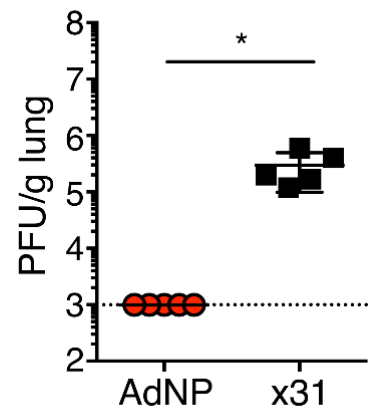
immunized with AdNP s.c. and i.n. and 580 days later organs were isolated and D^bNP_{366} tetramer positive cells were enumerated through flow cytometry.

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A

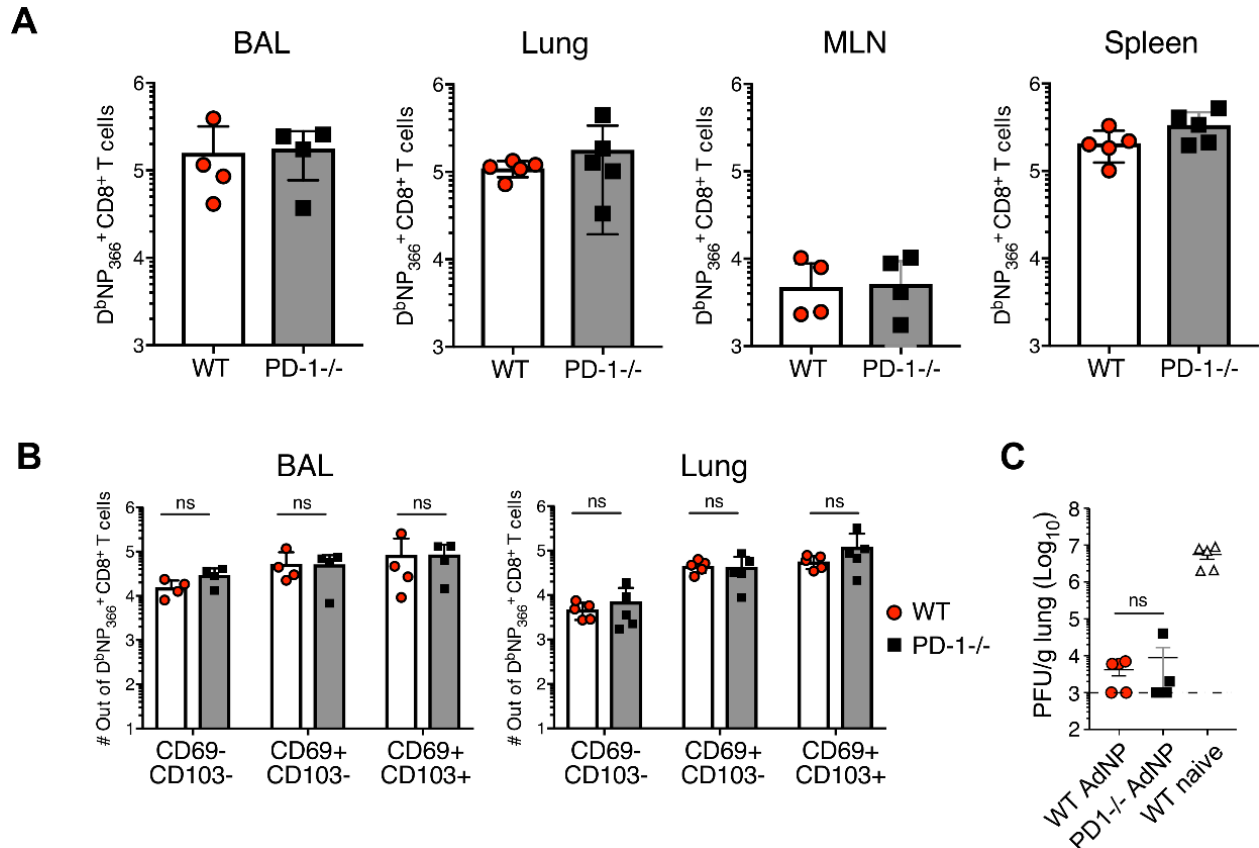


B



Supplementary Figure 2. AdNP generate long lasting protective immunity. C57BL/6 mice were immunized

with AdNP s.c. and i.n. or with x31 Influenza i.n. 255 days later mice were challenged with PR8 and weightloss **(A)** was recorded and lung titer was determined 7 days after infection **(B)**. Dots in **(A)** represents mean±SD. *:p<0.05, **(B)** line and bars represent mean±SD. Each dot represents one mouse. Dotted line represents detection limit of assay. PFU: plaque forming units
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Supplementary Figure 3. AdNP vaccination in PD-1 knock out mice results in generation of similar CD8 T

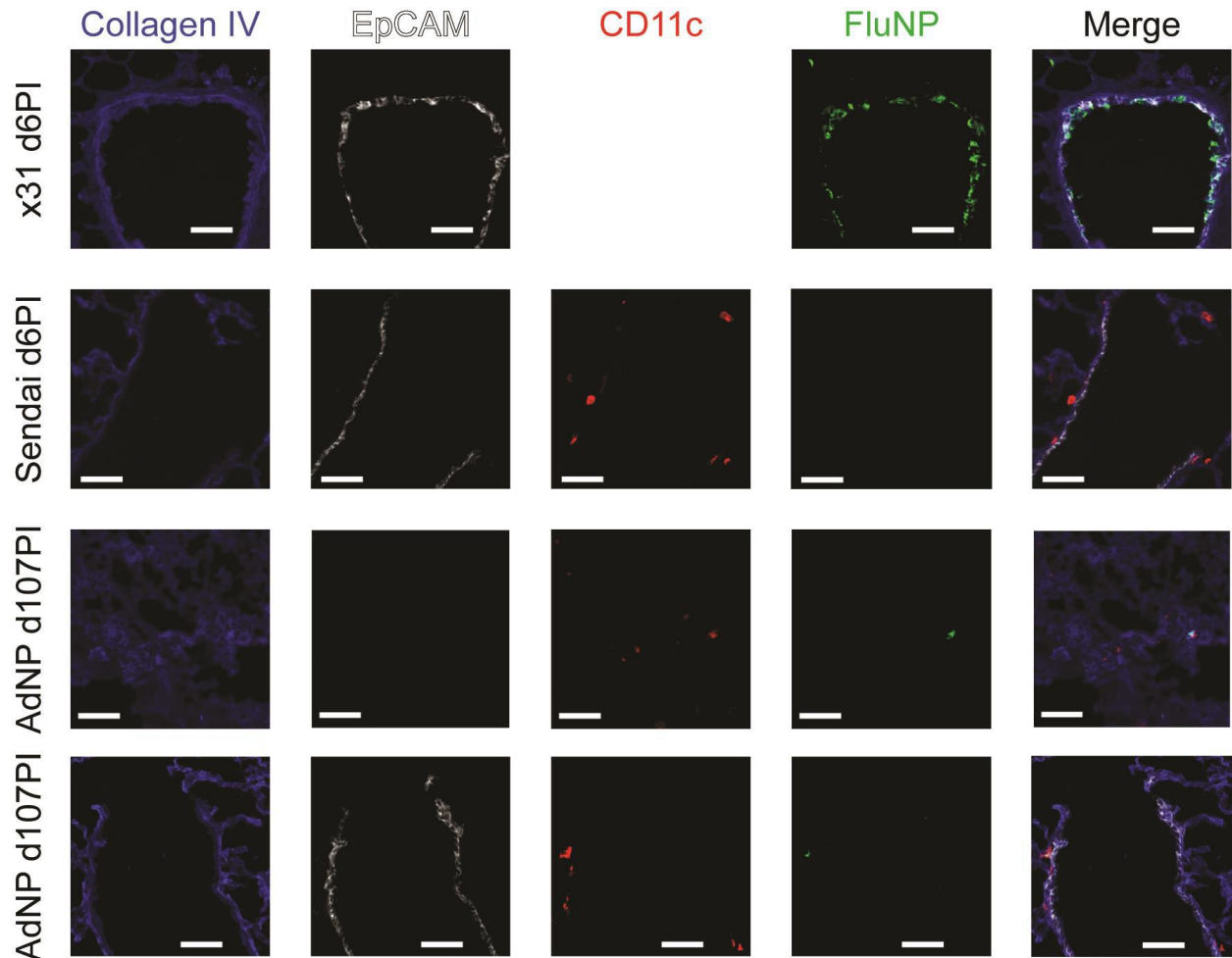
cell response. WT C57BL/6 mice and PD-1 knock out mice (PD-1^{-/-}) were immunized with AdNP s.c. and i.n.

60 days later BAL, lung, MLN and spleen was isolated and **(A)** $D^{b}NP_{366}$ tetramer positive cells were enumerated through flow cytometry. **(B)** Number of CD69 and CD103 subsets out of the tetramer positive T

cells were also analysed. **(C)** 60 days after vaccination, groups of mice were challenged with PR8 and titers

in lungs were determined five days after challenge. **(A)** Bars represents mean±SD, each dot represents one

mouse. **(B)** Line and bars represent mean±SD. Each dot represents one mouse. Dotted line represents detection limit of assay, ns: no significant difference



Supplementary Figure 4: Influenza NP protein persists in the lungs long after AdNP vaccination.

Immunofluorescence microscopy of OCT-embedded mouse lungs for the influenza nucleoprotein following indicated infections. Colors are blue- Collagen IV, white- EpCAM, red- CD11c, green- FluNP. Scale bars indicate 50 μ m. Data are representative of two mice after AdNP vaccination.