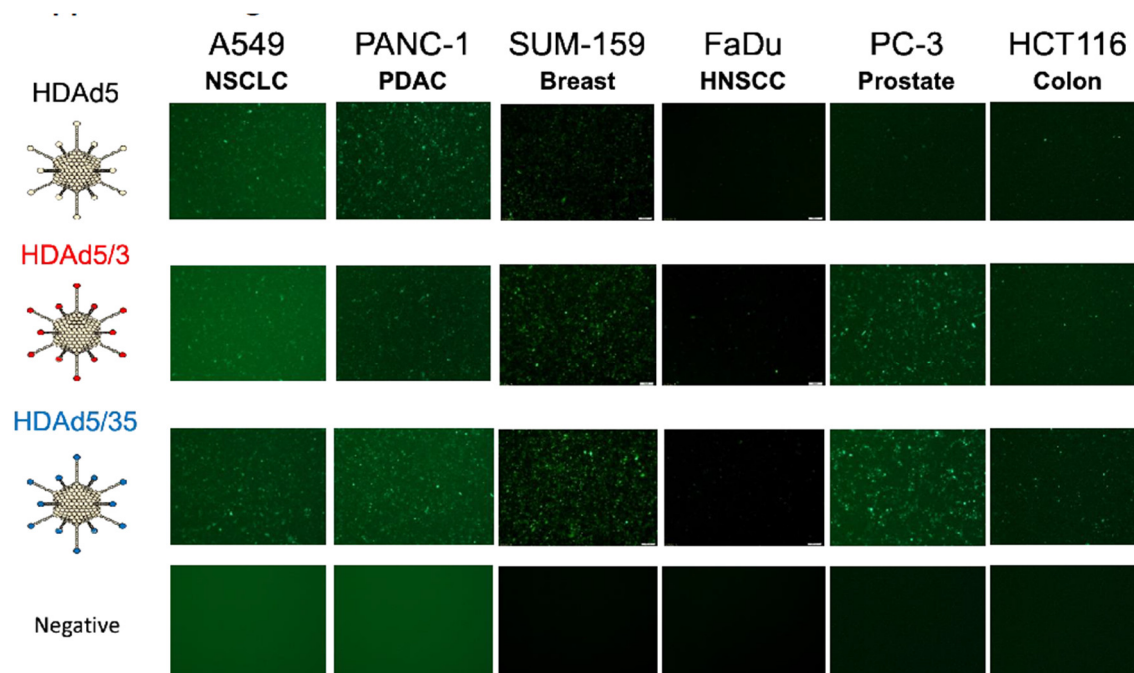
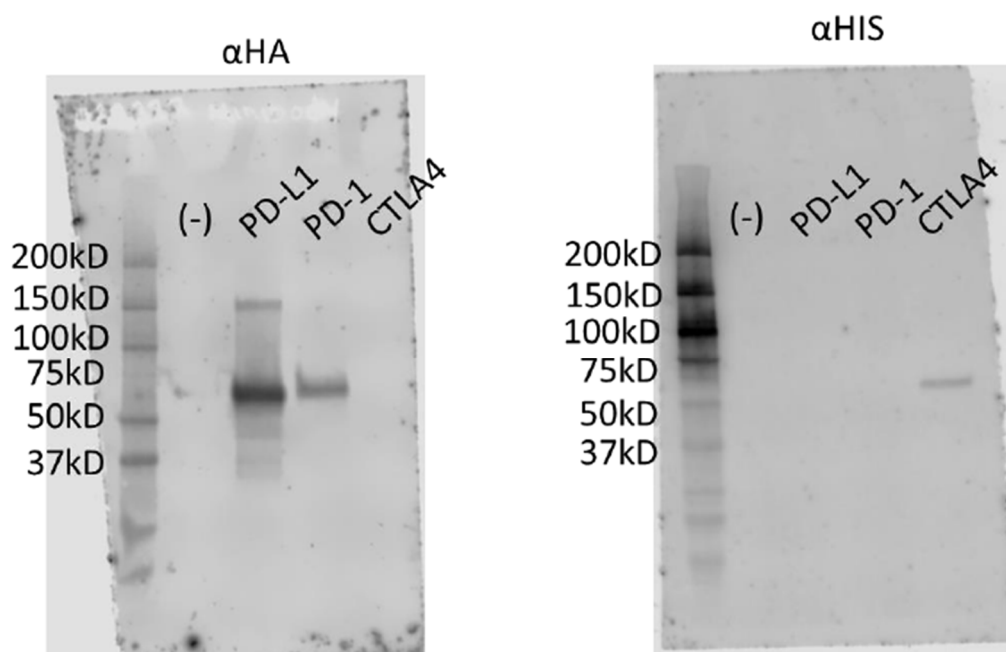


# Supplementary Materials: HydrAd: A Helper-Dependent Adenovirus Targeting Multiple Immune Pathways for Cancer Immunotherapy

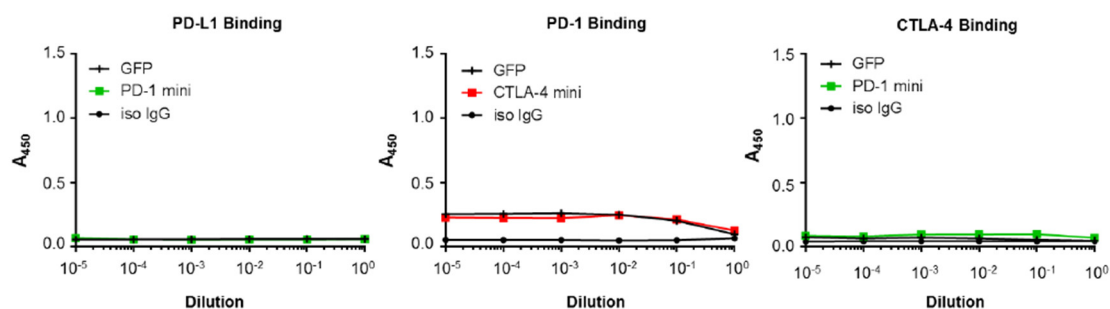
Amanda Rosewell Shaw, Caroline Porter, Greyson Biegert, Lisa Jatta and Masataka Suzuki



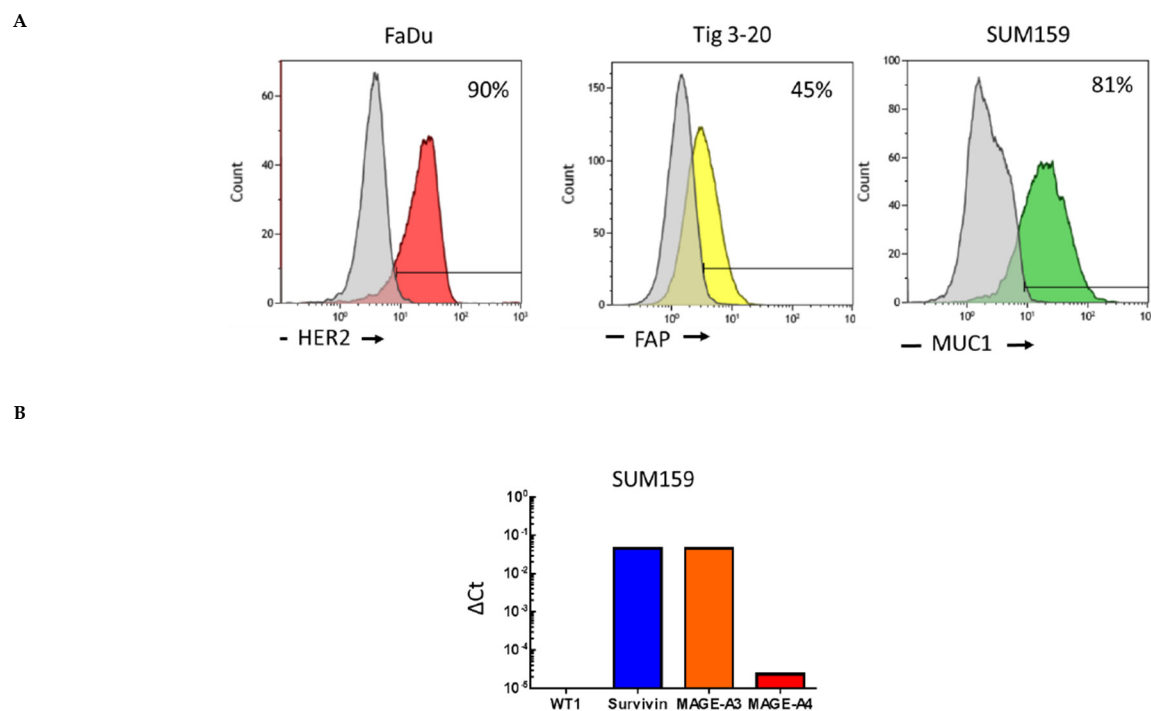
**Figure S1.** HDeGFP Transduction Microscopy. Representative fluorescent microscopy images of HDeGFP 100vp/cell infected solid tumor cell line panel.



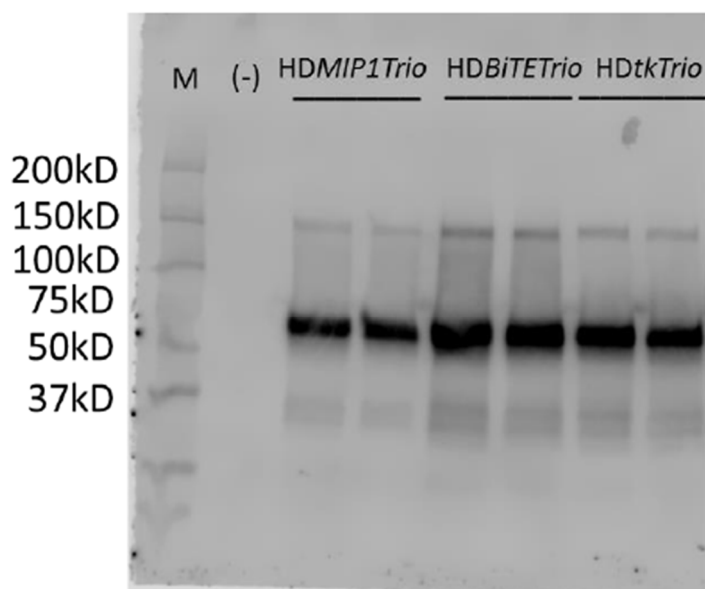
**Figure S2.** Complete, uncropped western blots for HDPDL1, HDPD1, HDCTLA4 minibody expression.



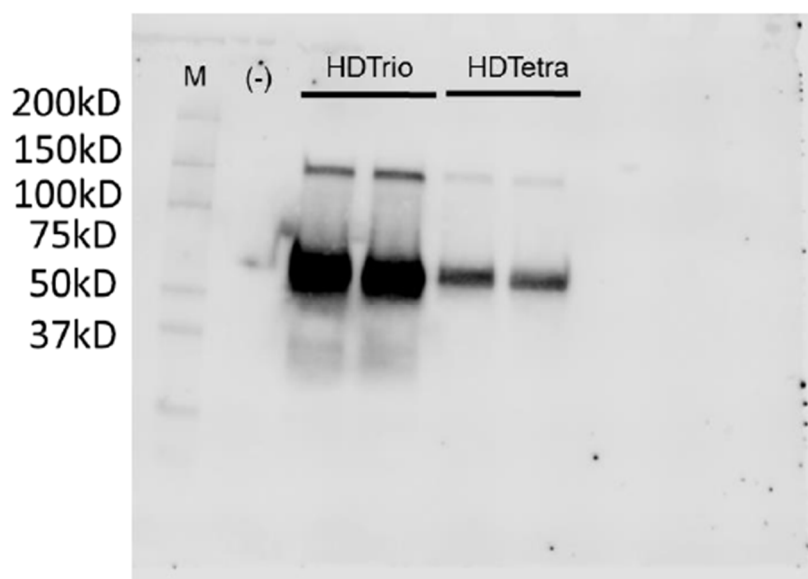
**Figure S3.** Minibody binding controls. A549 cells were transfected with GFP expression plasmid alongside minibody expression plasmids to serve as a control for minibody binding. Media containing GFP or an irrelevant minibody were assessed for binding to recombinant human protein (PD1minibody:PD1, CTLA4minibody:PD1, PD1minibody:CTLA4). Isotype IgG were used as controls (10ug/mL; highest concentration).



**Figure S4.** Tumor target antigen expression. (A) HER2, FAP, and MUC1 cell surface expression on FaDu, TIG-3-20, and SUM159 cells respectively, were analyzed by flow cytometry. (B) RNA was extracted from SUM159 cells and expression of the Cancer/Testis antigens WT1, Survivin, MAGE-A3, and MAGE-A4 was analyzed by qRT-PCR. Data were normalized with human B-actin.



**Figure S5.** Complete, uncropped western blots for HDTrios minibody expression.



**Figure S6.** Complete, uncropped western blots for HDTrio and HDTetra minibody expression.