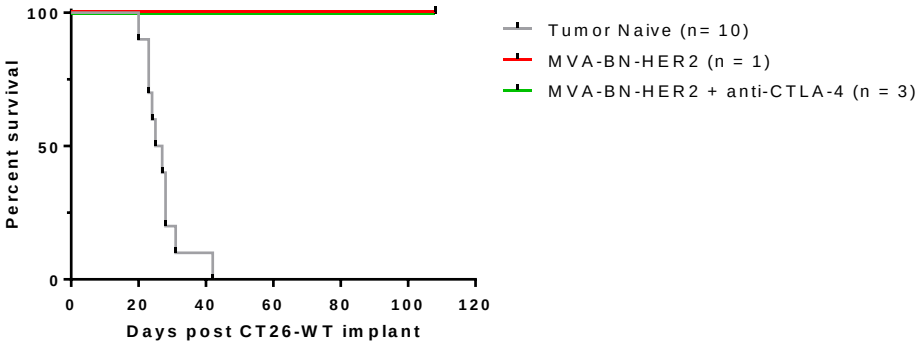
Supplemental Table 1 Combination of MVA-BN-HER2 and anti-CTLA-4 immunotherapies led to synergy in a mouse lung metastasis model

MVA-BN-HER2 (Inf. U)	anti-CTLA-4 (mg/kg)	mOS (Days)	Combination Index (CI)	Description
0	0	29	N/A	N/A
1E5	0	30	N/A	N/A
1E6	0	32	N/A	N/A
1E7	0	46	N/A	N/A
0	1	31	N/A	N/A
0	3	30	N/A	N/A
0	10	33	N/A	N/A
1E7	1	51	0.149	Strong Synergism
1E7	3	60	0.013	Very Strong Synergism
1E7	10	84	<0.001	Very Strong Synergism

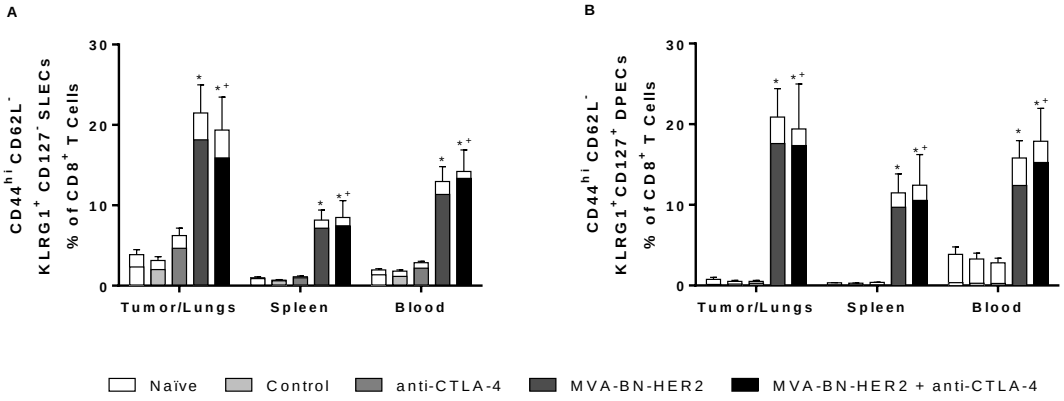
Mice were implanted i.v. with CT26-HER-2 cells on day 1 and treated with MVA-BN-HER2 (t.s., days 4 & 18) or anti-CTLA-4 (i.p., Clone 9D9 on days 3 &17 or 4 &18) at doses indicated in the table. Note that survival studies reported in the main body of the paper were treated with anti-CTLA-4 on days 3 & 17 only, therefore the mOS values reported in the paper and Supplemental Table 1 are similar but not identical.

Description and Interpretation of CI from Chou TC:

CI	Description
<0.1	Very Strong Synergism
0.1 – 0.3	Strong Synergism
0.3 – 0.7	Synergism
0.7 – 0.9	Moderate Synergism
0.9-1.10	Nearly Additive
1.10-1.45	Moderate Antagonism
1.45-3.3	Antagonism
2.2 – 10	Strong Antagonism
>10	Very Strong Antagonism



Supplemental Figure 1 Durable immune response with antigen spread after tumor rejection. Six months after the primary CT26-HER-2 challenge, mice that rejected tumors were implanted with CT26-WT cells. In the same experiment, CT26-WT cells were implanted into control (tumor naïve) mice that were not previously challenged with CT26-HER-2 cells.



Supplemental Figure 2 MVA-BN-HER2 alone or in combination with CTLA-4 blockade increased the effector cell population. Cells were defined by their expression of CD127 and KLRG1 (empty bars) and the effector memory markers $CD44^{hi}$ and $CD62L^{-}$ (shaded bars). A) $CD8^{+}$ $CD127^{-}KLRG1^{+}$ short lived effector cells (SLECs) and B) $CD8^{+}$ $CD127^{+}KLRG1^{+}$ double positive effector cells (DPECs). $p < 0.05$: * vs. control, † vs. anti-CTLA-4, and # vs. MVA-BN-HER2.