

Supplementary Table 1

Mouse strain	Tumor cells	Treatment (i.p.)	Treatment (i.t.)	Trial 1-1	Trial 1-2	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8	Trial 9	Trial 10	Trial11
WT mice	LLC-2B2	PBS		3	(3)	5	5	5	5						
WT mice	LLC-2B2	anti-PD-1 and anti-CTLA-4		3	(3)	5	5	5	5						
<i>Rag2</i> ^{-/-} mice	LLC-2B2	anti-PD-1 and anti-CTLA-4		2	(2)										
<i>Batf3</i> ^{-/-} mice	LLC-2B2	PBS					5	2	3						
<i>Batf3</i> ^{-/-} mice	LLC-2B2	anti-PD-1 and anti-CTLA-4		(5)	5	4	7	4	8						
WT mice	B16F10-3F11	PBS								5	5				
WT mice	B16F10-3F11	anti-PD-1 and anti-CTLA-4								5	5				
<i>Batf3</i> ^{-/-} mice	B16F10-3F11	PBS								3	3				
<i>Batf3</i> ^{-/-} mice	B16F10-3F11	anti-PD-1 and anti-CTLA-4								4	4				
WT mice	LLC-2B2	PBS	PBS									3	3	3	3
WT mice	LLC-2B2	anti-PD-1 and anti-CTLA-4	PBS									3	3	3	3
<i>Batf3</i> ^{-/-} mice	LLC-2B2	PBS	PBS									4	2	1	1
<i>Batf3</i> ^{-/-} mice	LLC-2B2	anti-PD-1 and anti-CTLA-4	PBS									4	3	3	3
<i>Batf3</i> ^{-/-} mice	LLC-2B2	anti-PD-1 and anti-CTLA-4	Flt3L-DC									4	3	3	3

Mouse strain	Tumor cells	Treatment (i.p.)	Treatment (i.t.)	Trial 12	Trial 13	Trial 14	Trial 15	Trial 16	Trial 17	Trial 18	Trial 19
WT mice	LLC-Parental	PBS		5	5						
WT mice	LLC-Parental	anti-PD-1		5	5						
WT mice	LLC-Parental	anti-PD-1 and anti-CTLA-4		5	5						
WT mice	LLC-2B2	PBS				3	5	5			
WT mice	LLC-2B2	anti-PD-1					5	5			
WT mice	LLC-2B2	anti-PD-1 and anti-CTLA-4				3	5	5			
WT mice	LLC-2F7	PBS				3	5	5			
WT mice	LLC-2F7	anti-PD-1					5	5			
WT mice	LLC-2F7	anti-PD-1 and anti-CTLA-4				3	5	5			
WT mice	LLC-3C7	PBS				3			9	5	5
WT mice	LLC-3C7	anti-PD-1							9	5	
WT mice	LLC-3C7	anti-PD-1 and anti-CTLA-4				3			9	5	5

Supplementary Table 2

Antibodies for *in vivo* ICB treatment

Antibodies	Dose	Clone	Source	Identifier
rat IgG2a anti-PD-1	100 µg or 200 µg	RMP1-14	Bio X Cell	Cat# BP0146
rat IgG2b anti-CTLA-4	100 µg or 200 µg	9D9	Bio X Cell	Cat# BP0164

Antibodies for flow cytometry

Antibodies	Fluorochrome	Clone	Source	Identifier
anti-mouse CD45	FITC	30-F11	Biolegend	Cat# 103107
anti-mouse CD45	Brilliant Violet 605	30-F11	Biolegend	Cat# 103139
anti-mouse CD44	Brilliant Violet 650	IM7	Biolegend	Cat# 103049
anti-mouse CD4	PE-Cy7	RM4-5	Biolegend	Cat# 100527
anti-mouse CD4	Brilliant Violet 711	RM4-5	Biolegend	Cat# 100549
anti-mouse CD8b.2	PerCP/Cyanine5.5	53-5.8	Biolegend	Cat# 140417
anti-mouse CD279 (PD-1)	PE	29F.1A12	Biolegend	Cat# 135205
anti-mouse CD274 (B7-H1, PD-L1)	PE	MIH7	Biolegend	Cat# 155403
Rat IgG2a, κ Isotype Ctrl Antibody	PE	RTK2758	Biolegend	Cat# 400507
anti-mouse H-2K ^b	APC	AF6-88.5	Biolegend	Cat# 116517
Rat IgG2a, κ Isotype Ctrl Antibody	APC	RTK2758	Biolegend	Cat# 400511
anti-mouse CD366 (Tim-3)	PE-Cy7	RMT3-23	Biolegend	Cat# 119715
Rat IgG2a, κ Isotype Ctrl Antibody	PE-Cy7	RTK2758	Biolegend	Cat# 400521
anti-mouse TCF-7/TCF-1	Brilliant Violet 421	S33-966	BD biosciences	Cat# 566692
anti-mouse Ki-67	FITC	11F6	Biolegend	Cat# 151211
anti-mouse TNF-α	PE	MP6-XT22	Biolegend	Cat# 506305
anti-mouse IFN-γ	APC	XMG1.2	Biolegend	Cat# 505809
anti-mouse I-A/I-E	PerCP/Cyanine5.5	M5/114.15.2	Biolegend	Cat# 107625
anti-mouse CD11c	PE	N418	Biolegend	Cat# 117307
anti-mouse CD172a (SIRPα)	PE-Cy7	P84	Biolegend	Cat# 144007
anti-mouse XCR1	APC	ZET	Biolegend	Cat# 148205
anti-mouse CD40	FITC	3/23	Biolegend	Cat# 124607
anti-mouse CD80	Brilliant Violet 421	16-10A1	Biolegend	Cat# 104725
anti-mouse CD80	Brilliant Violet 510	16-10A1	Biolegend	Cat# 104741
anti-mouse CD86	Alexa Fluor 700	GL-1	Biolegend	Cat# 105024
anti-mouse CD19	Alexa Fluor 700	1D3	BD biosciences	Cat# 557958
anti-mouse Ly6C	Brilliant Violet 605	HK1.4	Biolegend	Cat# 128035
anti-mouse CD64 (FcγRI)	Brilliant Violet 711	X54-5/7.1	Biolegend	Cat# 139311
anti-mouse CD11b	BUV805	M1/70	BD biosciences	Cat# 568345
PO-PRO™-1 Iodide	---	---	Thermo Fisher Scientific	Cat# P3581
Zombie Aqua™ Fixable Viability Kit	---	---	Biolegend	Cat# 423102
TruStain FcX™ (anti-mouse CD16/32)	---	93	Biolegend	Cat# 101319