

Characterization of human cancer xenografts in humanized mice

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Additional File 2

Table S1. Lack of relationship between CD45% engraftment, intratumoral CD45%, and HLA matching between tumor and stem cell donors

Model	Donor ID	hCD45 ⁺ Engraftment	TIL hCD45 ⁺ %	MHC-I A	MHC-I B	MHC-I C	MHC-II
A375-1	5381-6	70.6	0.73	Partial Match	Partial Match	Partial Match	DQA1*02:01
A375-2	5381-19	62.7	0.98	Partial Match	Partial Match	Partial Match	DQA1*02:01
A375-3	5396-10	34.8	2.91	Partial Match	Partial Match	Partial Match	No Match
A549-1	5381-21	45.3	0.97	No Match	Partial Match	No Match	DQB1*02:02
A549-2	5396-6	30.7	1.67	No Match	Partial Match	No Match	No Match
A549-3	5377-47	71.3	2.87	No Match	No Match	No Match	No Match
Caki-1-1	5389-12	80.5	17.8	No Match	No Match	No Match	No Match
Caki-1-2	5396-2	52.7	7.26	No Match	No Match	No Match	No Match
Caki-1-3	5377-46	72.1	9.23	Partial Match	No Match	No Match	No Match
H1299-1	5396-16	32.4	16.7	No Match	No Match	No Match	DRB1*01:01
H1299-2	5377-7	70.5	13.8	Partial Match	No Match	No Match	No Match
H1299-3	5377-41	74.2	4.74	Partial Match	No Match	No Match	No Match
H1975-1	5381-25	68.4	2.33	Partial Match	No Match	No Match	DQA1*02:01
H1975-2	5396-12	32.9	1.3	Partial Match	No Match	No Match	DRB1*15:01

H1975-3	5377-35	76.7	2.11	No Match	No Match	No Match	No Match
HCC827-1	6134-15	43.4	34.2	No Match	No Match	No Match	DRB1*01:01
HCC827-2	6134-40	61.1	22.1	No Match	No Match	No Match	DRB1*01:01
HCC827-3	6133-19	63.7	19.6	No Match	No Match	No Match	DRB1*15:01
HCT116-1	5377-20	84	1.63	No Match	No Match	No Match	No Match
HCT116-2	5377-23	84	0.74	No Match	No Match	No Match	No Match
HCT116-3	5381-5	62.5	0.81	Partial Match	No Match	Partial Match	DQB1*02:02
KU-19-19-1	5389-20	82.9	2.57	No Match	No Match	Partial Match	DRB1*15:01, DQB1*06:02, DQA1*01:02
KU-19-19-2	5377-42	67.1	1.54	No Match	No Match	No Match	No Match
KU-19-19-3	5381-12	55.4	6.28	No Match	No Match	No Match	No Match
MDA-MB-231-1	6028-43	58.8	21.3	No Match	No Match	No Match	DQA1*01:02
MDA-MB-231-2	6028-3	58.8	21.8	No Match	No Match	No Match	DQA1*01:02
MDA-MB-231-3	6028-6	63.3	13.4	No Match	No Match	No Match	DQA1*01:02
RKO-1	5381-28	75.2	3.54	No Match	No Match	Partial Match	NA
RKO-2	5396-11	43.1	0.39	Partial Match	No Match	Partial Match	NA
RKO-3	5377-26	79.5	5.56	No Match	No Match	No Match	NA

Figure S1. Intratumoral frequencies of monocytes/macrophages, granulocytic myeloid-derived suppressor cells (G-MDSCs) and monocytic myeloid-derived suppressor cells (M-MDSCs).

Tumors engrafted in CD34⁺ humanized mice ($n = 3$) were dissociated and samples were stained according to the Materials and Methods section. Error bars represent standard error of the mean.

Tumor volumes ranged from 150–900 mm³.

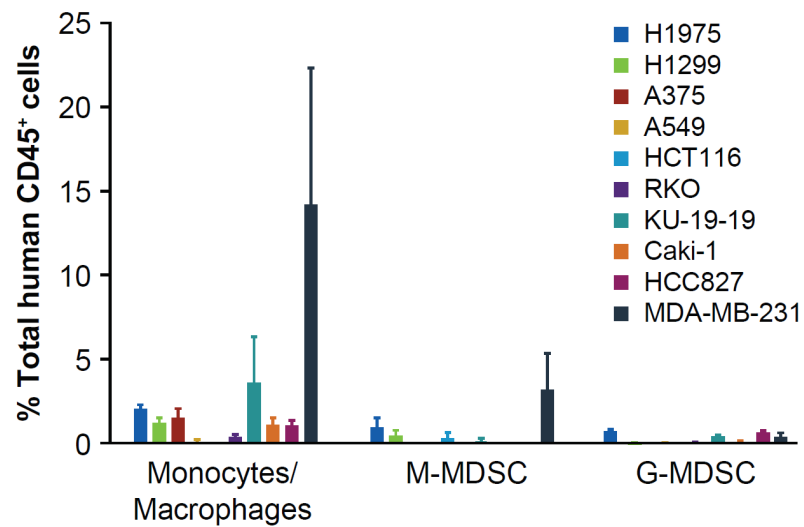


Figure S2. Relationship between the percentage of CD8⁺ T cells and the number of mutations in each cell line. The % CD8⁺ T-cell values are the % of the CD45⁺ cell population. Mutation data were obtained from the Cancer Cell Line Encyclopedia.

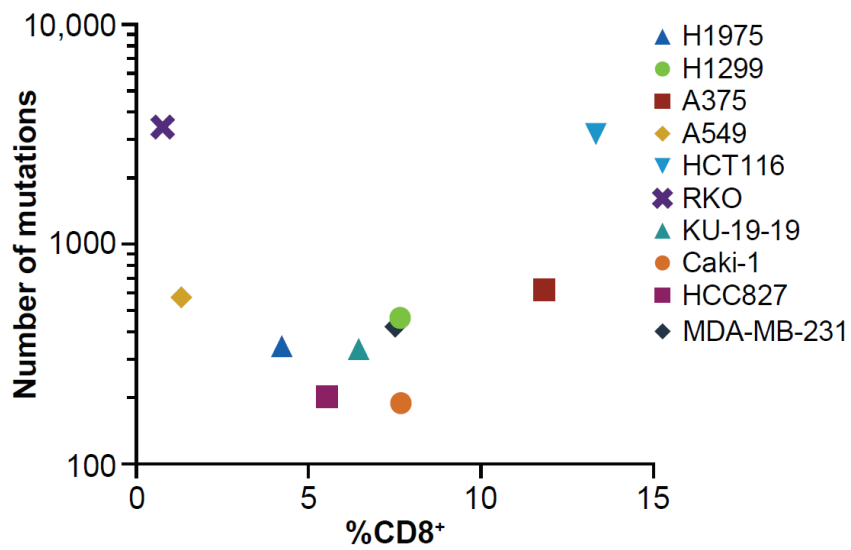


Figure S3. Antitumor efficacy of atezolizumab in the A375 and MDA-MB-231 models graphed according to tumor/stem cell donor matching. A375 tumor-bearing humanized mice were dosed with **a** IgG control or **b** atezolizumab according to the Materials and Methods. Similarly, MDA-MB-231 tumor-bearing humanized mice were dosed with **c** IgG control or **d** atezolizumab. Donors are graphed by color, and HLA subtypes are designated as a Match, Partial Match, or a Mismatch.

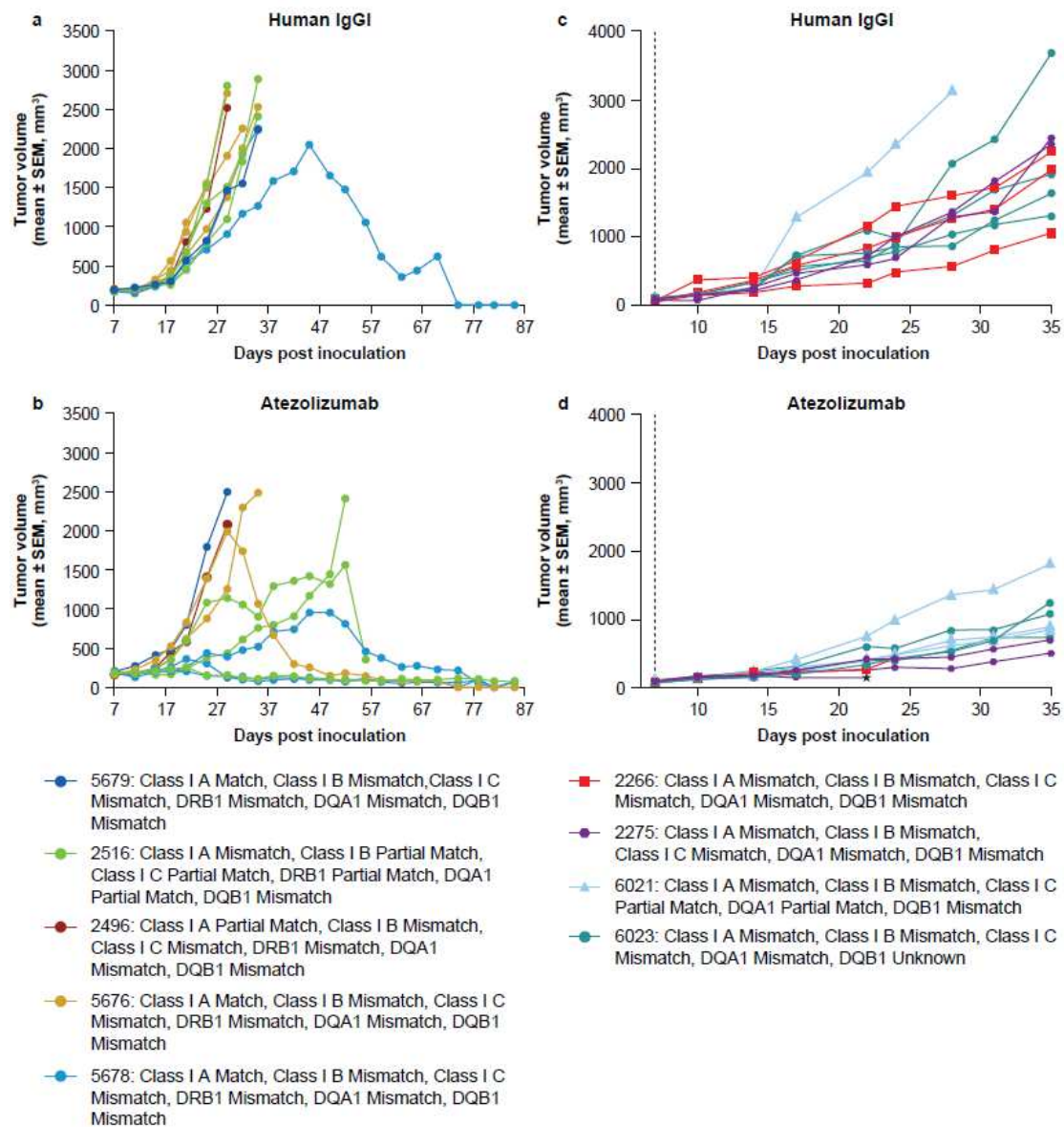


Figure S4. T-cell activation following atezolizumab treatment of MDA-MB-231 tumor-bearing mice. **a** Humanized NSG mice bearing MDA-MB-231 tumors (between 300–500 mm³) were dosed on Day 0 and Day 5 with human IgG1 or atezolizumab according to the Materials and Methods. On Day 7, tumors were collected and the percentage of CD4⁺PD-1⁺ cells and CD8⁺PD-1⁺ cells within the CD45⁺ cell population was determined. **b** Humanized mice bearing MDA-MB-231 tumors (approximately 100 mm³) were dosed every 5 days with 5 mg/kg human IgG1 or 5mg/kg atezolizumab. Tumors were collected at the end of study (Day 35) and assessed for the percentage of CD3⁺, CD4⁺, and CD8⁺ T cells. Statistical significance was determined by the Student's T Test.

