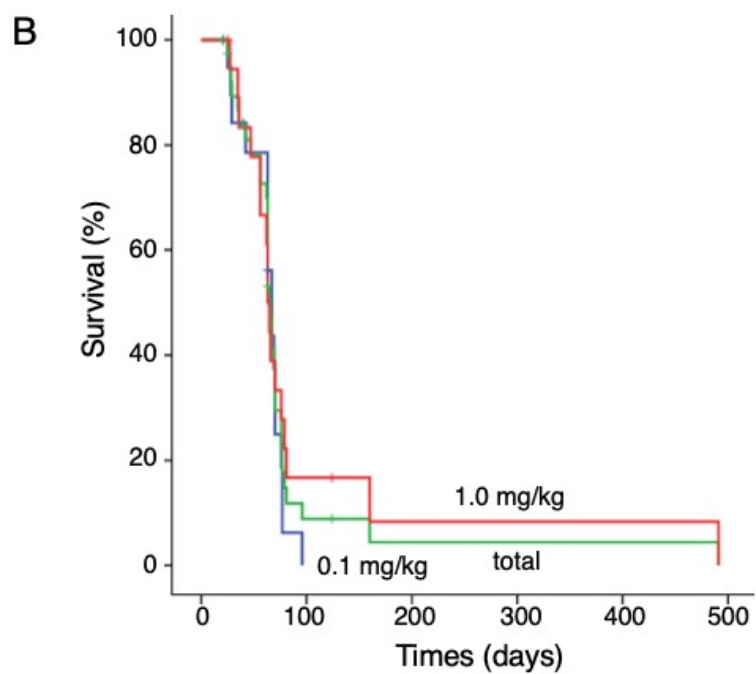
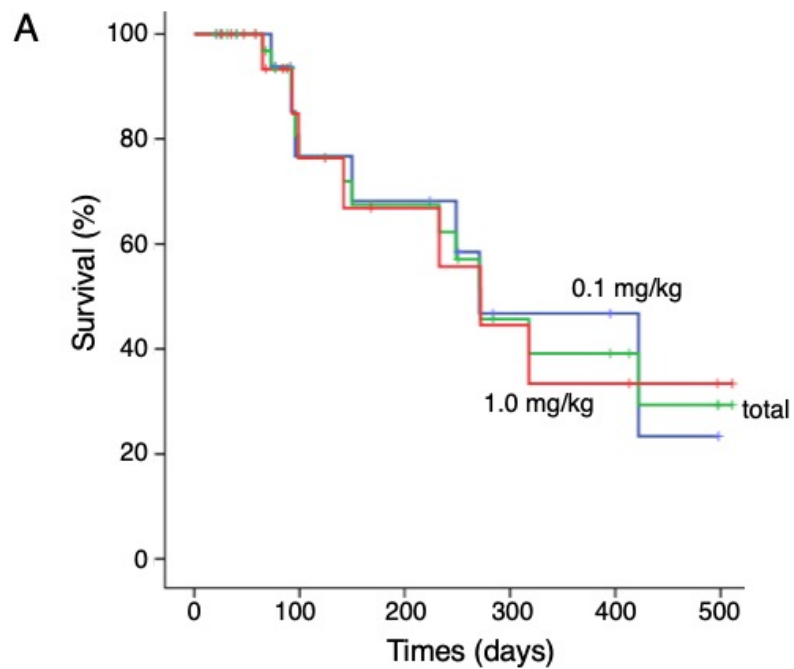


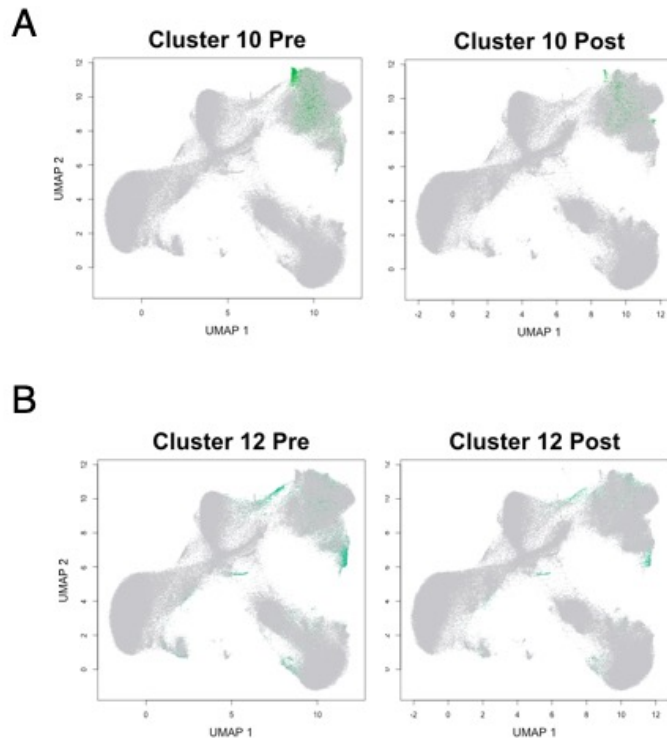
Supplemental Information



Supplemental Figure. 1

Supplemental Figure 1. Clinical courses of patients with solid cancers treated with mogamulizumab.

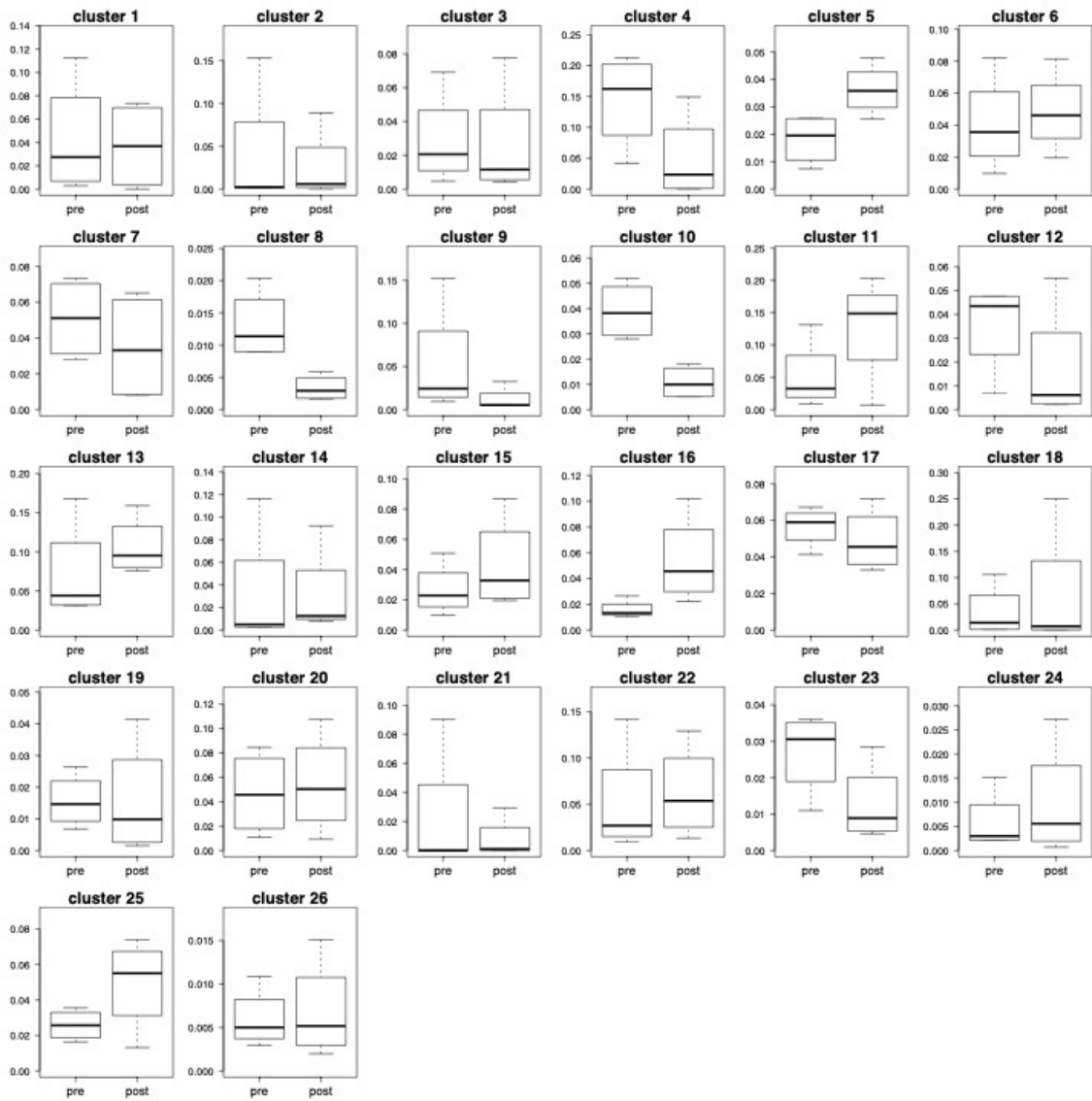
A, B. Kaplan–Meier curves of OS (**A**) and PFS (**B**) for 39 CCR4-negative solid cancer patients (11 esophageal cancer, 12 lung cancer, 6 malignant melanoma, 5 gastric cancer and 5 ovarian cancer patients) who were treated with mogamulizumab (0.1 or 1.0 mg/kg). Green lines, total patients; red line, patients who received 1.0 mg/kg mogamulizumab; blue lines, patients who received 0.1 mg/kg mogamulizumab.



Supplemental Figure. 2

Supplemental Figure 2. The entire landscape of changes at pre- and post-mogamulizumab treatment.

A, B. UMAP projection with green color indicating cells assigned to cluster 10 (Treg cells) (**A**) and cells assigned to cluster 12, which comprised the CD8⁺ T cell population in the mixed population of CD4⁺ and CD8⁺ T cells (**B**).



Supplemental Figure. 3

Supplemental Figure 3. The entire landscape of changes at pre- and post-mogamulizumab treatment.

Boxplot of pre- and post-treatment proportions of all clusters detected by CYBERTRACK2.0.

Supplementary Table 1. Antibodies and tetramers used in the CyTOF analyses.

Antibodies used for CyTOF			
Molecule	Clone	Company	Conjugation
EOMES	WD1928	Fluidigm	141Pr
CD40	5C3	Fluidigm	142Nd
CD45RA	HI100	Fluidigm	143Nd
CD8a	RPA-T8	Fluidigm	146Nd
CD11c	Bu15	Fluidigm	147Sm
CD14	RMO52	Fluidigm	148Nd
pLck [T505]	4/LCK-Y505	Fluidigm	149Sm
CD134 (OX40)	ACT35	Fluidigm	150Nd
CD107a (LAMP1)	H4A3	Fluidigm	151Eu
CD194 (CCR4)	205410	Fluidigm	153Eu
CD3	UCHT1	Fluidigm	154Sm
CD279 (PD-1)	EH12.2H7	Fluidigm	155Gd
CD86	IT2.2	Fluidigm	156Gd
pStat3 [Y705]	4	Fluidigm	158Gd
FoxP3	236A/E7	Fluidigm	159Tb
Tbet	4B10	Fluidigm	160Gd
CD152 (CTLA-4)	14D3	Fluidigm	161Dy
CD80 (B7-1)	2D10.4	Fluidigm	162Dy
CD183 (CXCR3)	G025H7	Fluidigm	163Dy
CD185 (CXCR5)	51505	Fluidigm	164Dy
CD223 (LAG3)	874501	Fluidigm	165Ho
pNF-kB p65 [S529]	K10-895.12.50	Fluidigm	166Er
CD197 (CCR7)	G043H7	Fluidigm	167Er
CD154 (CD40L)	24-31	Fluidigm	168Er
CD25 (IL-2R)	2A3	Fluidigm	169Tm
CCR8	L263G8	Fluidigm	170Yb
CD20	2H7	Fluidigm	171Yb
pS6 [S235/S236]	N7-548	Fluidigm	172Yb
CD274 (PD-L1)	29E.2A3	Fluidigm	175Lu
CD4	RPA-T4	Fluidigm	176Yb

Supplementary Table 2. Antibodies and tetramers used in the flow cytometry analyses.

Antibodies used for flow cytometry			
Molecule	Clone	Company	Conjugation
Human CD3	UCHT1	BD Biosciences	AF-700
	SK7	BioLegend	BV786
Human CD4	SK3	BD Biosciences	BV510
		BioLegend	AF-700
Human CD8	RPA-T8	BD Biosciences	BV786
	SK1	BioLegend	BV510
Human CCR4	1G1	BD Biosciences	PerCP-Cy5.5
	205410	R&D Systems	APC
Human CD45RA	HI100	BioLegend	BV711
Human PD-1	MIH4	BD Biosciences	BV421
Human FoxP3	236A/E7	eBioscience	PE
Human CTLA-4	BNI3	BD Biosciences	APC
Human LAG3	17B4	Enzo	FITC
Human CCR7	150503	BD Biosciences	PE-CF594
	G043H7	BioLegend	PE-Cy7
Zombie NIR		BioLegend	NIR
Fixable Viability Dye		eBioscience	APC-eF780