

Supplemental Table1: Summary of clinical and pathological findings in analyzed cases.

Case No.	Age	Gender	Subtype	sATL-PI	Response to prior treatments	Response to mogamulizumab (4 cycles)	Best overall response to mogamulizumab	ATL cases treated with mogamulizumab who were consolidated with allo-HSCT	Outcome	Survival time from mogamulizumab administration	CCR4	CCR4 global score	CD3	CD4	CD8	TIL (%)	nPDL1	mPDL1	Foxp3	HLA class I	HLA class II	CCR4 status		
1	70	Female	Acute	High	PD	CR	CR	-	Death	66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2	48	Female	Acute	High	PD	PR	PR	-	Death	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
3	74	Female	Acute	High	PD	CR	CR	-	Death	360	Positive	4	Positive	Positive	Negative	2	Positive	Negative	Positive	Positive	Negative	Negative	wild type	
4	61	Female	Acute	Intermediate	PD	PD	PD	-	Death	41	Positive	1	Positive	Positive	Negative	3	Negative	Positive	Positive	Negative	Negative	Negative	wild type	
5	80	Male	Lymphoma	Intermediate	PD	PD	PD	-	Death	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
6	79	Male	Lymphoma	High	PD	PD	PD	-	Death	55	Positive	4	Positive	-	Negative	0.5	Negative	Positive	Positive	Negative	Negative	Negative	Mutated	
7	67	Female	Acute	Intermediate	PD	PR	PR	-	Death	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
8	72	Male	Lymphoma	Intermediate	PD	CR	CR	-	Death	459	Positive	12	Positive	Positive	Negative	0.5	Negative	Positive	Negative	Positive	Positive	Positive	wild type	
9	63	Female	Lymphoma	High	PD	SD	SD	+	Death	336	Positive	2	Positive	Positive	Negative	5	Negative	Negative	Negative	Positive	Negative	Negative	Mutated	
10	55	Male	Acute	Intermediate	PD	SD	SD	-	Death	272	Positive	12	Positive	Positive	Negative	10	Negative	Negative	Negative	Positive	Positive	Positive	Mutated	
11	63	Female	Acute	Intermediate	PD	PR	PR	-	Death	129	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
12	51	Male	Acute	Intermediate	PR	CR	CR	-	Death	82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
13	46	Female	Acute	High	PR	CR	CR	+	Survival without lymphoma	1360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
14	54	Male	Acute	Intermediate	PR	CR	CR	+	Survival without lymphoma	1647	Negative	1	Negative	Negative	Negative	0	Negative	Negative	Negative	Negative	Negative	Negative	Negative	wild type
15	63	Male	Acute	Intermediate	PD	CR	CR	-	Death	653	Positive	6	Positive	Positive	Negative	2	Negative	Positive	Positive	Positive	Positive	Negative	Mutated	
16	79	Female	Lymphoma	High	PD	PR	PR	-	Death	170	Positive	8	Positive	Positive	Positive	0	Negative	Negative	Negative	Positive	Positive	Positive	Mutated	
17	57	Female	Lymphoma	Intermediate	PD	PR	PR	-	Death	101	Positive	12	Positive	Negative	Positive	0.5	Negative	Positive	Negative	Negative	Negative	Negative	wild type	
18	71	Female	Acute	High	PD	PR	PR	-	Death	100	Positive	12	Positive	Positive	Negative	0.2	Negative	Negative	Positive	Positive	Positive	Negative	wild type	
19	53	Female	Acute	Intermediate	PD	PD	PD	-	NA	NA	Positive	6	Positive	Positive	Negative	20	Positive	Negative	Negative	Positive	Positive	Positive	wild type	
20	69	Female	Acute	Intermediate	PD	CR	CR	-	Survival without lymphoma	494	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
21	78	Female	Acute	Intermediate	PD	PD	PD	-	Death	91	Negative	0	Positive	Positive	Negative	0	Negative	Positive	Negative	Positive	Positive	Positive	Mutated	
22	69	Male	Acute	High	PD	PR	PR	-	Survival without lymphoma	34	Positive	12	Positive	Positive	Negative	10	Negative	Positive	Negative	Positive	Positive	Positive	wild type	

NA, not available; CR, complete remission; PR, partial remission; SD, stable disease; PD progressive disease; TIL, tumor-infiltrating lymphocyte; sATL-PI, simplified Adult T-cell leukemia/lymphoma prognostic index; nPDL1, PDL1 expression in neoplastic cells; mPDL1, PDL1 expression in microenvironment.