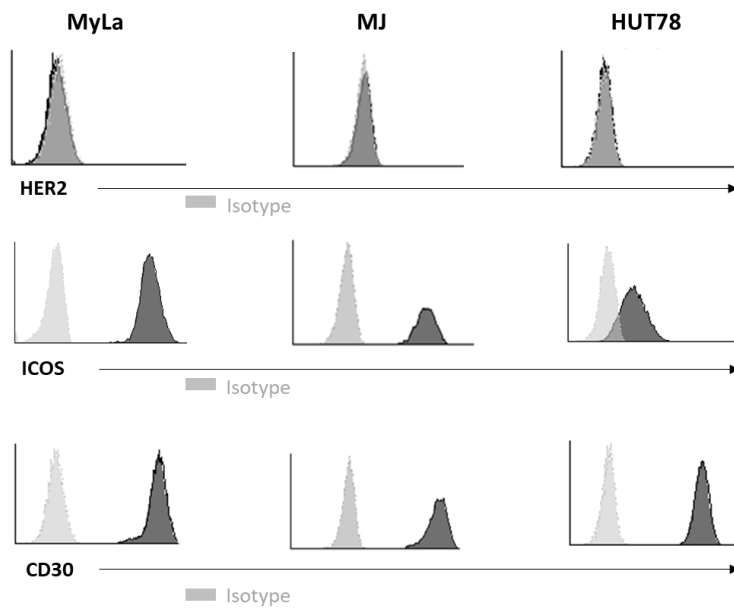
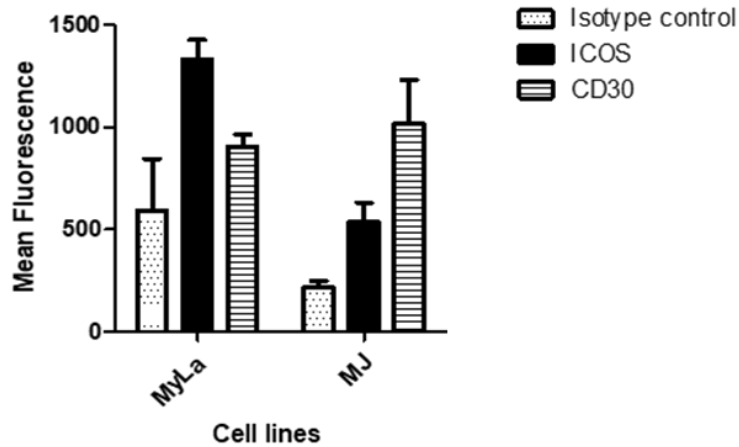


	CTCL (MF and SS) n = 52	Negative controls				Positive controls	
			B-cell lymphoma n = 12		CD30 ⁺ LPD n = 14	PCSMLPD n = 12	AITL n = 13
Age (years)							
Median (range)	65 (21 - 91)		70 (96 - 23)		63 (22 - 87)	58 (23 - 76)	73 (49 - 87)
Gender							
Male	36 (69%)		5 (42%)		8 (57%)	5 (42%)	5 (39%)
Clinical stage		Type of lymphoma					
IA	4	Follicle center	3	cALCL	9		
IB	7	Marginal zone	3	LP	5		
IIA	3	Leg-type	5				
IIB	9	Intravascular	1				
IIIA	9						
IIIB	3						
IVA1	12						
IVA2	5						

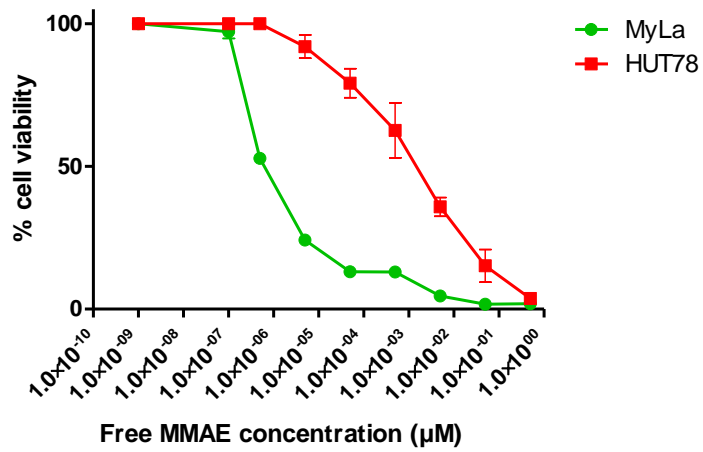
Supplementary Table 1. Clinical characteristics of the CTCL patient population (n = 52) and controls (n=51) for the evaluation of ICOS expression. CTCL = cutaneous T-cell lymphoma. MF = Mycosis Fungoides. SS = Sézary Syndrome. CD30⁺ LPD = CD30⁺ lymphoproliferative disease. cALCL = cutaneous anaplastic large cell lymphoma. LP = lymphomatoid papulosis. PCSMLPD = primary cutaneous CD4⁺ small/medium T-cell lymphoproliferative disorders. AITL = angioimmunoblastic T-cell lymphoma.



Supplementary Fig 1. Flow cytometry dot plots of CTCL cell lines showing the expression of HER2, ICOS and CD30 by MyLa, MJ and HUT78.



Supplementary Fig 2. Measurement of antibody internalization of MyLa and MJ with pHAb Reactive Dyes. We used a pHAb Reactive Dyes assay (Promega) to evaluate the internalization of anti-ICOS and anti-CD30 mAbs in MyLa and MJ cell lines. pHAb dyes are non-fluorescent at a neutral pH and become highly fluorescent at an acidic pH. Antibodies were linked to magnetic protein G beads, then labeled with pHAb Amine Reactive Dye. pHAb-conjugated antibodies were then co-incubated with cell lines for 20 hours at 37°C. Fluorescence of internalized antibodies was detected using flow cytometry (532 nM, PE detector). Note that anti-ICOS mAbs are internalized more in MyLa than in MJ cells, while it is the opposite for anti-CD30 mAbs.



Supplementary Fig 3. HUT78 cell line displays resistance to MMAE. Percentage of cell viability in increasing free-MMAE concentrations (mean of triplicates), assessed with alamarBlue™. Free-MMAE was purchased from Selleckchem (Houston, TX, USA).