

Table S1. Differences between original LCA and mLCA

	LCA	mLCA
<i>Effector cells</i>		
<i>Type</i>	FACS purified Ag-specific CD8 ⁺ T-cells	Total CD8 ⁺ T-cells
<i>no. Ag-sp cells</i>	31-1000	3383
<i>no. total CD8⁺ T-cells</i>	31-1000	30000-10 ⁷ a)
<i>Target cells</i>	125 or 250 specific +125 or 250 irrelevant	220-56388
<i>Experiment set-up</i>	Specific and irrelevant targets in a single well	Specific and irrelevant targets in separate wells
<i>Brefeldin A</i>	No	After 1h of co-incubation
<i>Read-out</i>		
<i>Cytotoxicity</i>	Yes	Yes
<i>Degranulation (CD107a)</i>	Yes	Yes
<i>Cytokine production</i>	Yes, in supernatant by CBA	Yes, per cell by ICS
depending on the frequency of Ag-specific CD8 ⁺ T-cells		

Table S2. Frequency and phenotype of Melan-A-specific CD8⁺ T- cells from PBMC and TILN of study subjects

			PBMC ^{c)}	TILN ^{c)}	<i>p</i> -value
% Melan-A specific ^{a)}			1.7±1.2	3.9±4.4	0.14
	<u>CD45RA</u>	<u>CCR7</u>			
Nv ^{b)}	+	+	3.1±3.3	1±1	0.31
CM ^{b)}	-	+	4.7±6	0.7±0.6	0.29
EM ^{b)}	-	-	77.1±11.8	95±4.6	0.03
EMRA ^{b)}	+	-	15.4±14	3±3.6	0.17

within CD8⁺ T-cells

within Melan-A-specific CD8⁺ T-cells; Nv – naïve, CM – Central Memory, EM – Effector Memory, EMRA – Effector Memory CD45RA⁺ cells

mean ± s.d.