



Figure S1 Investigation of tumor antigen on DCs by fluorescence microscopy. DCs were stained with CellTracker™ Green CMFDA before loading with honokiol-derived tumour cell lysates pre-stained with CellTracker™ Red CMPTX. After that, antigen loading was verified by visualization of tumor antigen (red) within DCs (green) under fluorescence microscope indicated by arrowhead. (A) DCs only, (B) honokiol-derived CCA tumor cell lysates only, (C) and DCs-loaded with tumour cell lysates.

Table S1 Cytokines level of interferon- γ (A) and interleukin-12. Autologous T lymphocytes were cocultured either with unloaded or loaded tumour cell lysates or tumour cell lysates derived from honokiol-treated CCA cells for 1-5 days before measurement of cytokines. Levels of interferon- γ and interleukin-12 in conditioned medium were analysed by ELISA. Results are shown as mean \pm SD of three independent experiments.

Cytokine	Test group	Cytokine level (pg/mL)		
		Day 1	Day 3	Day 5
IFN-γ	T cells	29 \pm 11	80 \pm 25	101 \pm 87
	T cells + unpulsed DCs	514 \pm 256	402 \pm 88	351 \pm 50
	T cells + TCL pulsed DCs	224 \pm 179	260 \pm 213	300 \pm 245
	T cells + HOK-derived TCL pulsed DCs	1121 \pm 486	729 \pm 299	763 \pm 260
IL-12	T cells	66 \pm 15	71 \pm 24	55 \pm 15
	T cells + unpulsed DCs	100 \pm 73	828 \pm 359	933 \pm 391
	T cells + TCL pulsed DCs	1003 \pm 594	1415 \pm 807	1260 \pm 215
	T cells + HOK-derived TCL pulsed DCs	405 \pm 130	2108 \pm 793	2738 \pm 418

Table S2 Percentage of cell viability of target cell after cultivation with effector T cells. Differently primed effector T lymphocytes were cocultured with target KKU-213L5 cell line at ratios of 1:20. Killing capacity was evaluated using the MTT assay. Cytotoxic effect of T lymphocytes on KKU-213L5 is shown as % viability of target cells at 24 h, 48 h and for MMNK1 at 48 h. Results are presented as mean \pm SD of three independent experiments.

Target cell	Test group	% cell viability at ratio 1:10 (mean \pm SD)	% cell viability at ratio 1:20 (mean \pm SD)
KKU-213L5 24 hours	T cells	100	100
	T cells + unpulsed DCs	95.76 \pm 2.99	99.00 \pm 8.77
	T cells + TCL pulsed DCs	89.75 \pm 7.28	83.65 \pm 7.73
	T cells + HOK-derived TCL pulsed DCs	85.54 \pm 4.39	81.24 \pm 8.98
KKU-213L5 48 hours	T cells	100	100
	T cells + unpulsed DCs	95.78 \pm 3.95	100.6 \pm 8.58
	T cells + TCL pulsed DCs	90.55 \pm 4.31	89.61 \pm 9.82
	T cells + HOK-derived TCL pulsed DCs	85.43 \pm 5.64	77.26 \pm 6.30
MMNK-1 48 hours	T cells		100
	T cells + unpulsed DCs		98.99 \pm 12.25
	T cells + TCL pulsed DCs		107.77 \pm 14.33
	T cells + HOK-derived TCL pulsed DCs		97.06 \pm 12.65