Fig. S1. A. Quantification of tumor cell killing measured by IncuCyte. The experiment setting was the same as in Fig. 3A. The percentage inhibition of growth is represented by measuring the percentage confluence of the wells at the end of 24-hour incubation period. The percentage confluence is the surface area of the well covered with the tumor cells, recorded by the IncuCyte as described in Materials and Methods. The results are an average of 4 independent assays. *$p < 0.05$ as compared with Non-transfected (NT) control. **B.** Quantification of tumor cell killing measured by caspase 3 assay. The details of the experiment were described in Fig. 3B. CT26-EGFR target cells in the absence of NK cells are included for comparison and the gating strategy for live and APC^+ tumor cells (labeled CT26-EGFR cells) are shown in the top panel. The numbers indicate the percentage of CT26-EGFR labeled cells positive for caspase 3 activation in the presence of non-transfected supernatants (NT, first column), BiCEP (second column) and TriCEP (third column) at various E:T target ratios as indicated. Shown in the top far right quadrant of the dot plots are the percentage of CT26-EGFR labeled cells positive for caspase 3 activation at the indicated E:T ratios.

Fig. S1

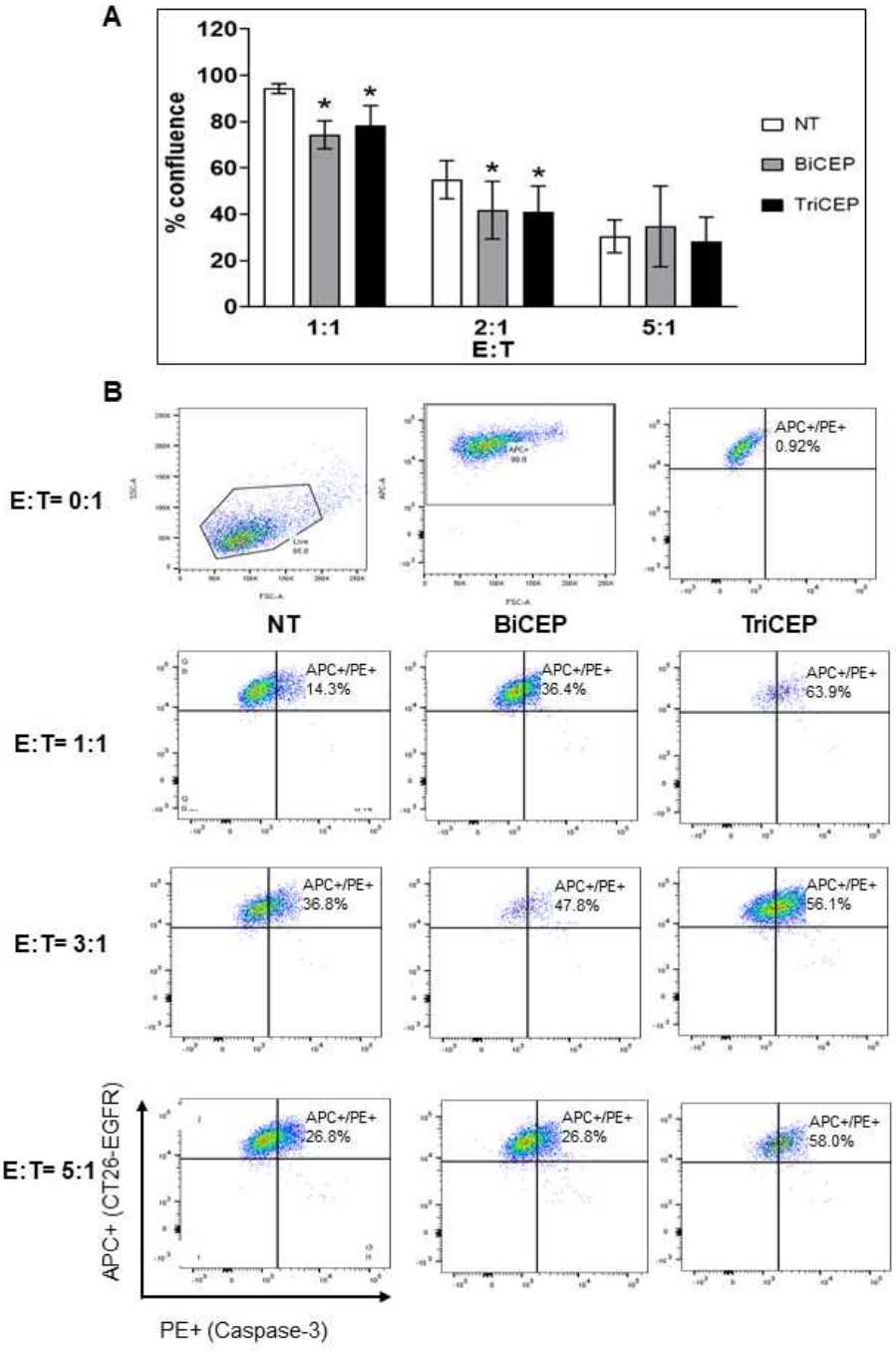
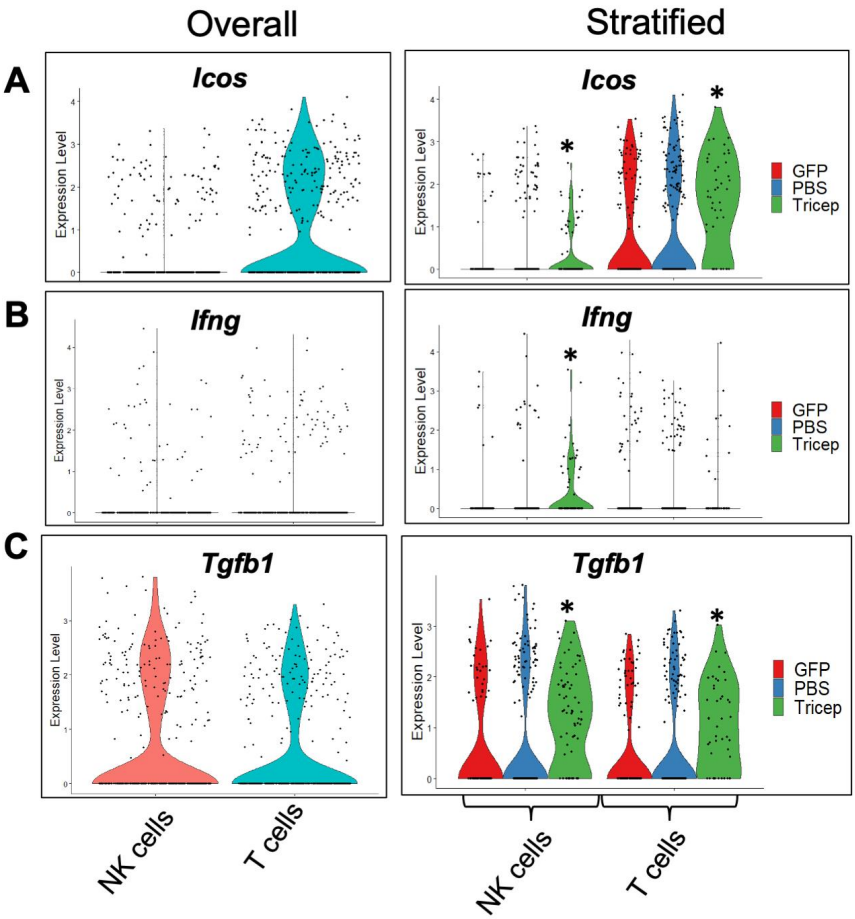


Fig. S2: Quantification of the signature NK and T cell activation and cytotoxic genes by scRNA-seq. Violin plots showing the expression of *Icos* (A), *Ifng* (B) and *Tgfb1* (E) within NK and T cell cluster (overall) and further stratification as per the treatment group (PBS, GFP or TriCEP). B. p-values for the violin plots in Fig. 7 and Fig. S3 are indicated with *p < 0.05 as compared with PBS control.

Fig. S2



D

p- values for Fig.7		PBS vs. GFP	PBS vs. TriCEP
Klrk1	NK cells	0.037	0.004
	T cells	0.001	0.135
Cd69	NK cells	0.556	0.003
	T cells	0.012	0.000
Stat3	NK cells	0.036	0.180
	T cells	0.849	0.001
Prf1	NK cells	0.454	0.019
	T cells	0.340	0.011
Gzmb	NK cells	0.008	0.565
	T cells	0.032	0.027
Icos	NK cells	0.353	0.403
	T cells	0.000	0.000
Ifng	NK cells	0.987	0.000
	T cells	0.170	0.205
TGfb1	NK cells	0.696	0.000
	T cells	0.593	0.000