



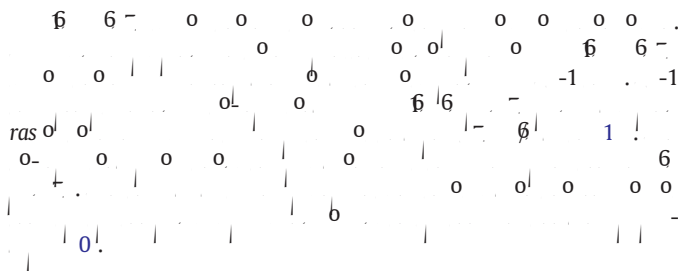
ARTICLE INFO

Article history:

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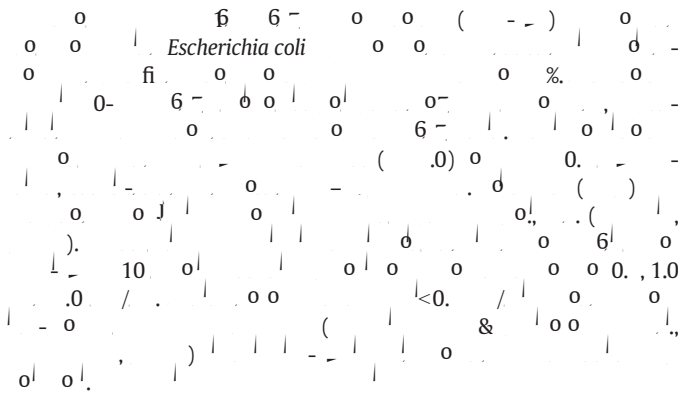
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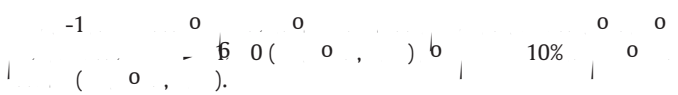


2. Materials and methods

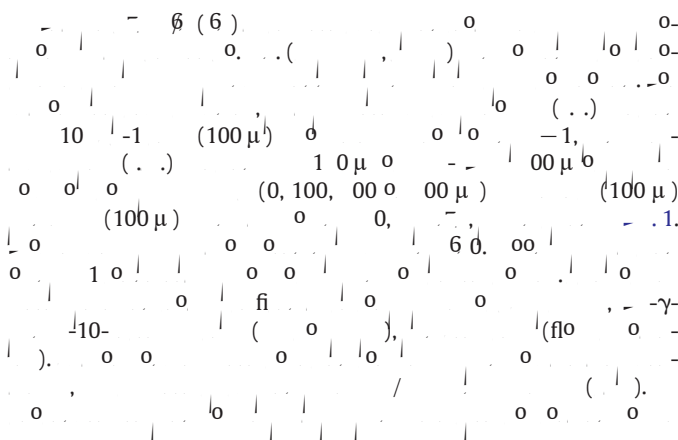
2.1. Vaccine formulations



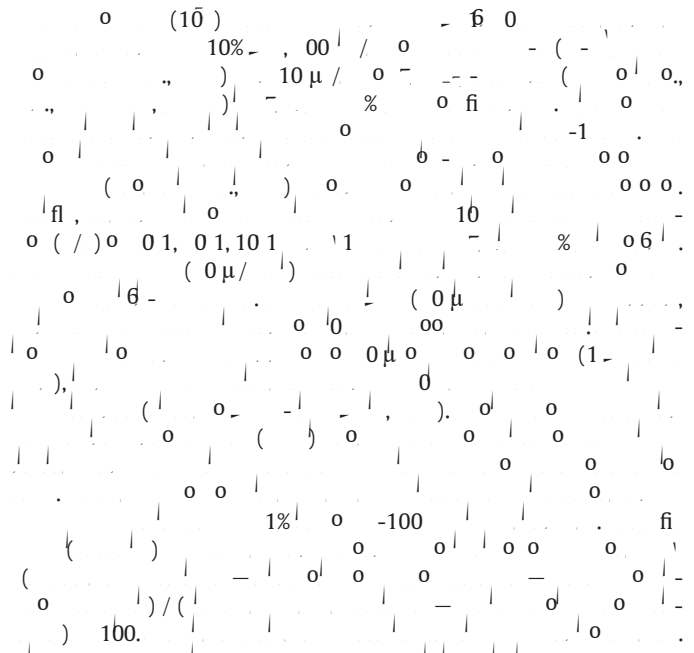
2.2. Tumor cell line



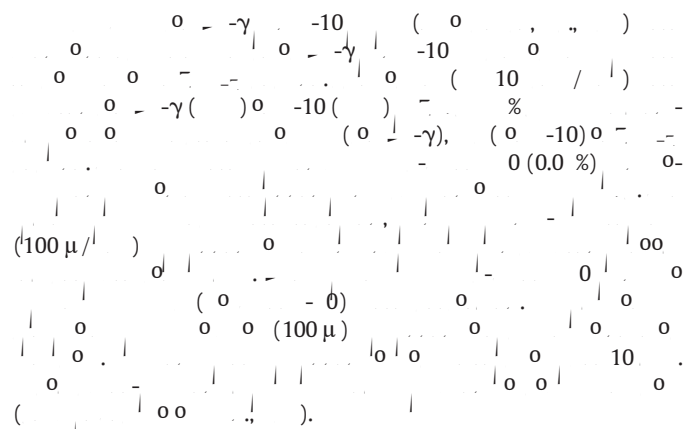
2.3. Tumor model and vaccination



2.4. CTL assay



2.5. Elispot assay of IFN- γ - and IL-10-secreting cells



2.6. Flow cytometry for Treg cells

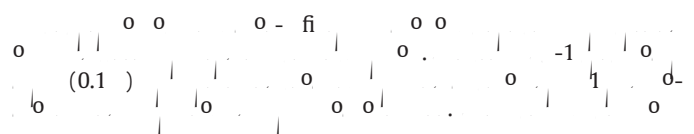


Fig. 1. Schematic diagram of the experimental timeline. A mouse is shown at day -1, followed by a timeline from day -1 to day 21. Key events include: TC-1 cell injection at day -1, vaccine administration at days 0, 3, and 7, and sacrifice at day 21. The timeline is marked with vertical lines and numbers: -1, 0, 3, 7, 21.



Parameter	Estimate	Standard Error	z-Statistic	p-Value
α_0	-0.0000	0.0000	-0.00	1.0000
α_1	-0.0000	0.0000	-0.00	1.0000
α_2	-0.0000	0.0000	-0.00	1.0000
α_3	-0.0000	0.0000	-0.00	1.0000
α_4	-0.0000	0.0000	-0.00	1.0000
α_5	-0.0000	0.0000	-0.00	1.0000
α_6	-0.0000	0.0000	-0.00	1.0000
α_7	-0.0000	0.0000	-0.00	1.0000
α_8	-0.0000	0.0000	-0.00	1.0000
α_9	-0.0000	0.0000	-0.00	1.0000
α_{10}	-0.0000	0.0000	-0.00	1.0000
α_{11}	-0.0000	0.0000	-0.00	1.0000
α_{12}	-0.0000	0.0000	-0.00	1.0000
α_{13}	-0.0000	0.0000	-0.00	1.0000
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α_{19}	-0.0000	0.0000	-0.00	1.0000
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α_{22}	-0.0000	0.0000	-0.00	1.0000
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α_{34}	-0.0000	0.0000	-0.00	1.0000
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α_{59}	-0.0000	0.0000	-0.00	1.0000
α_{60}	-0.00			



(-6)
 (-1)
 $(-)$
 $(P < 0.0)$
 0.6%
 1.0μ
 $(P < 0.0)$

Figure 1. A scatter plot showing the relationship between the number of eggs per female (Y-axis, 0 to 6) and the percentage of eggs that are viable (X-axis, 0% to 100%). The data points are represented by open circles. A solid line represents the linear regression, and a dashed line represents the 95% confidence interval. The regression equation is $y = 0.0001x + 0.0001$ and the correlation coefficient is $r = 0.0001$. The p-value is $P < 0.0001$.

(-6)

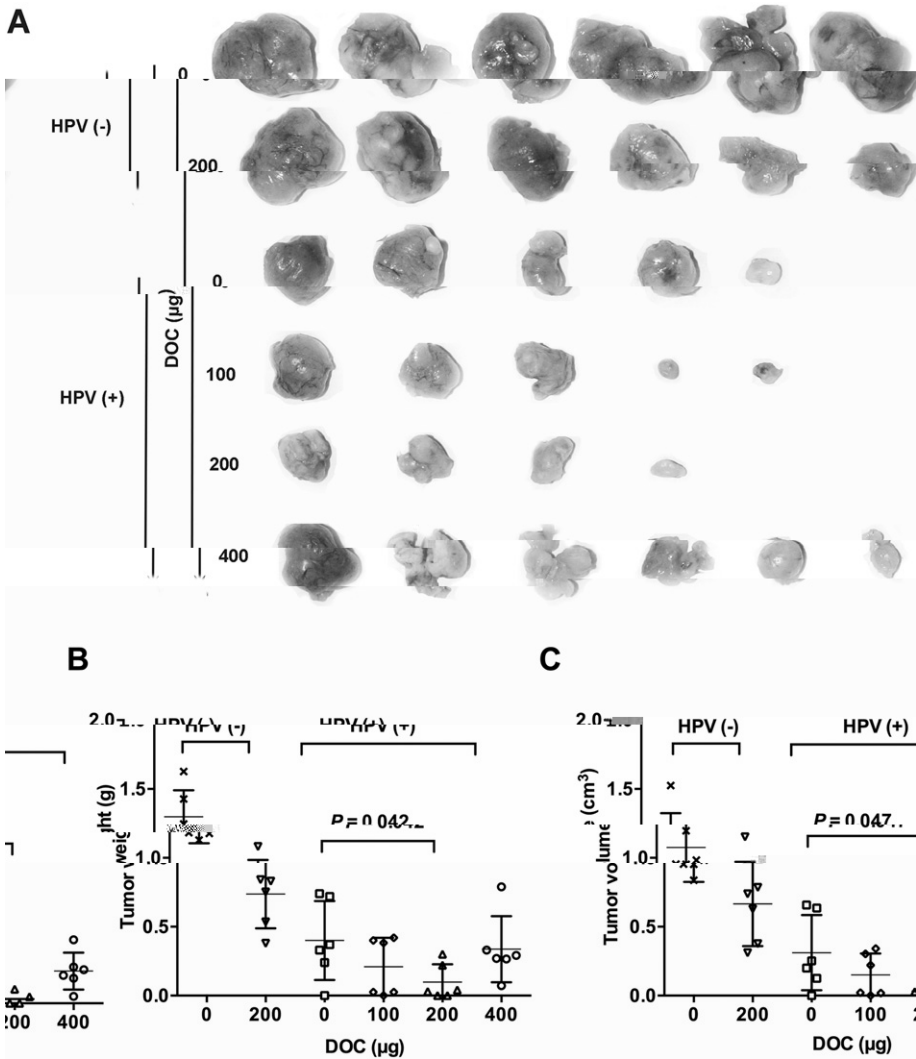


Fig. 2. Tumor weight and volume in HPV (-) and HPV (+) groups treated with different concentrations of DOC (0, 100, 200, 400 μg). Data are presented as mean ± SD. $P \leq 0.05$ for HPV (-) group and $P \leq 0.05$ for HPV (+) group.

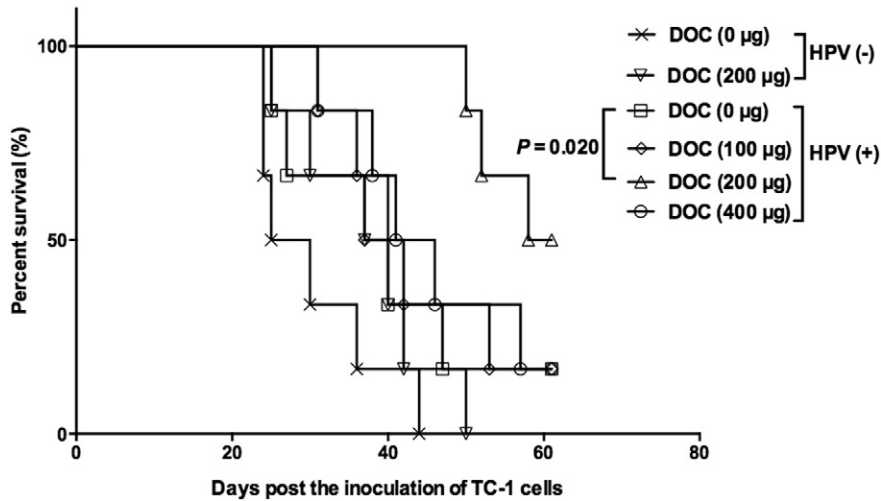


Fig. 3. Survival curves of HPV (-) and HPV (+) groups treated with different concentrations of DOC (0, 100, 200, 400 μg). Data are presented as mean ± SD. $P \leq 0.05$ for HPV (-) group and $P \leq 0.05$ for HPV (+) group.

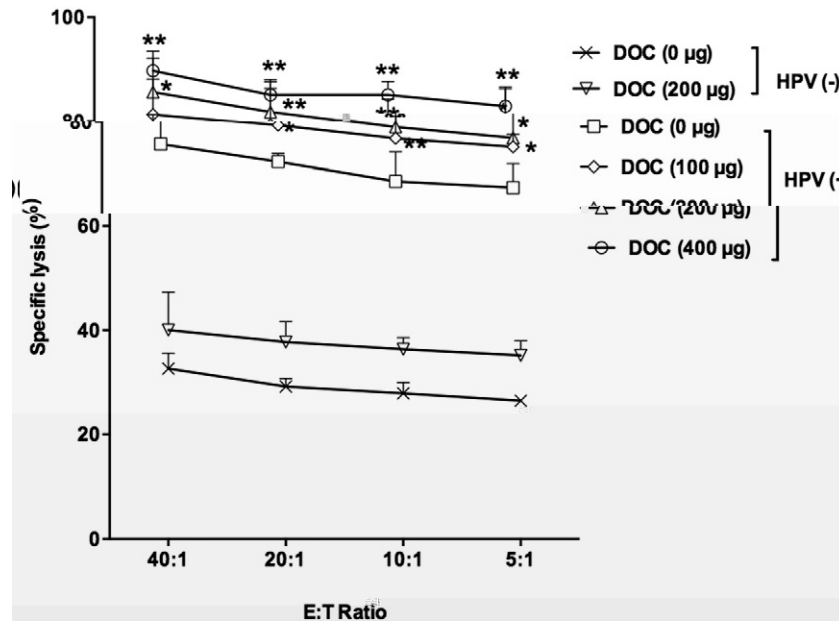


Fig. 4. Effect of DOC on the cytotoxicity of T cells. T cells were co-cultured with target cells at an E:T ratio of 40:1, 20:1, 10:1, and 5:1 in the presence of different concentrations of DOC (0, 100, 200, and 400 µg). The results are expressed as the mean ± SD of three independent experiments. * $P < 0.05$, ** $P < 0.01$.

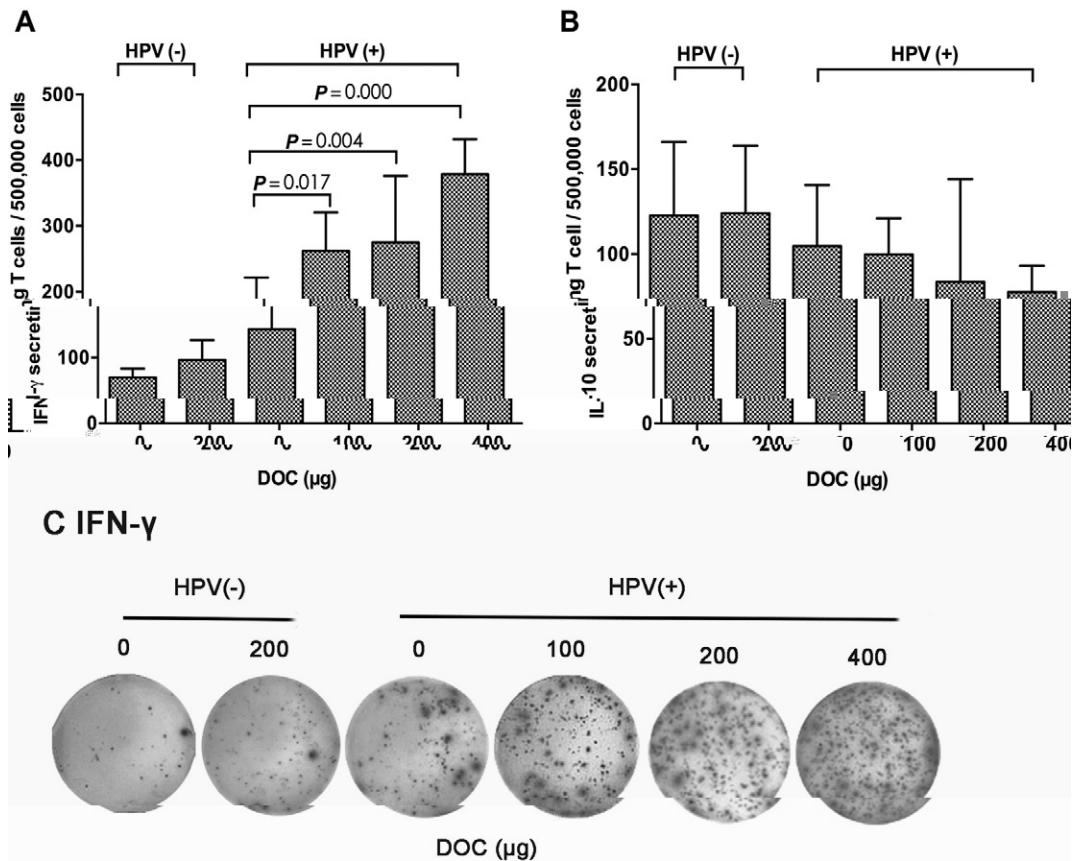
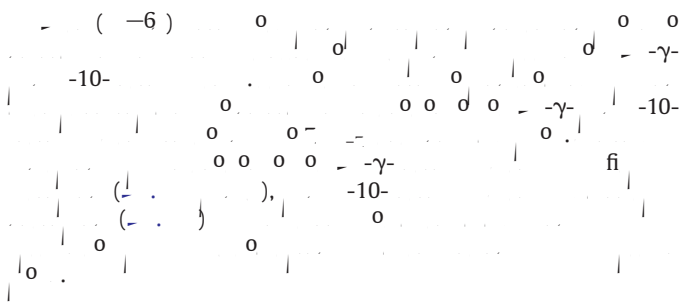
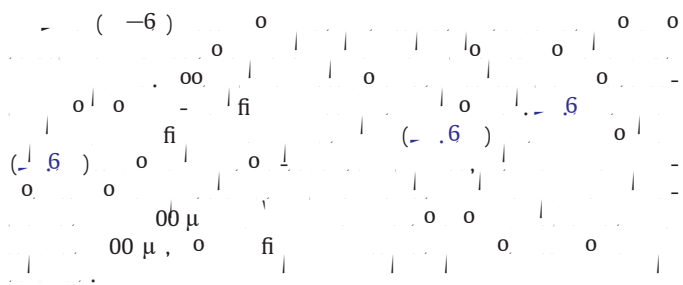


Fig. 5. Effect of DOC on the secretion of IFN-γ and IL-10 by T cells. T cells were co-cultured with target cells in the presence of different concentrations of DOC (0, 100, 200, and 400 µg). The results are expressed as the mean ± SD of three independent experiments. * $P < 0.05$, ** $P < 0.01$.

3.7. Docetaxel decreases Treg cells in tumors



3.8. Docetaxel and HPV-LFP synergistically up-regulate IFN- γ and down-regulate IL-10, VEGF and STAT-3 mRNA expression in tumors



4. Discussion

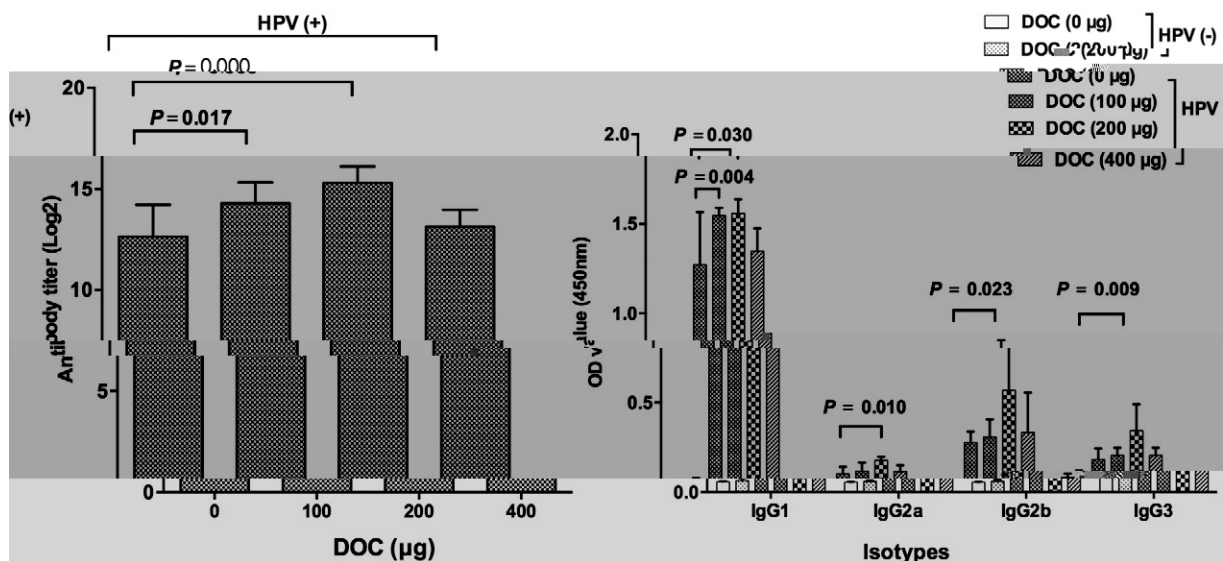
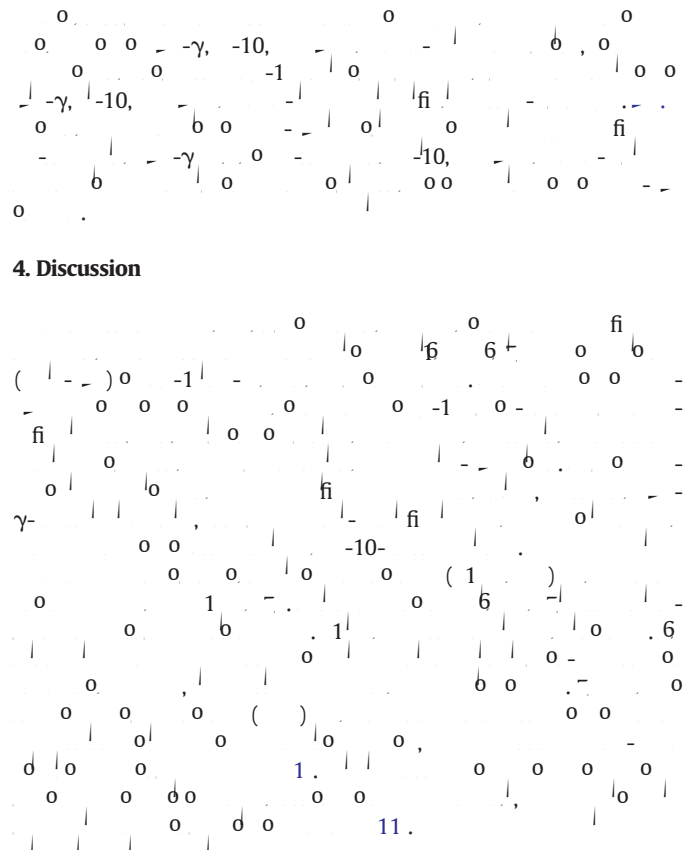
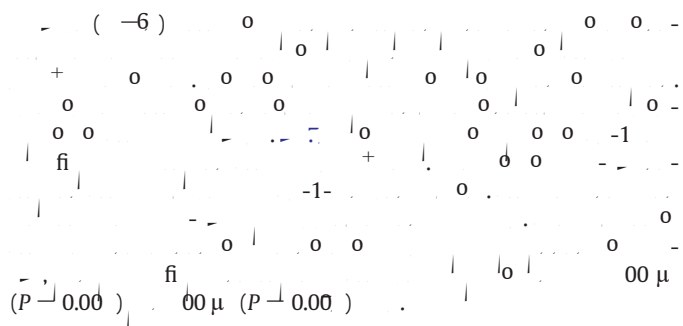


Fig. 6.

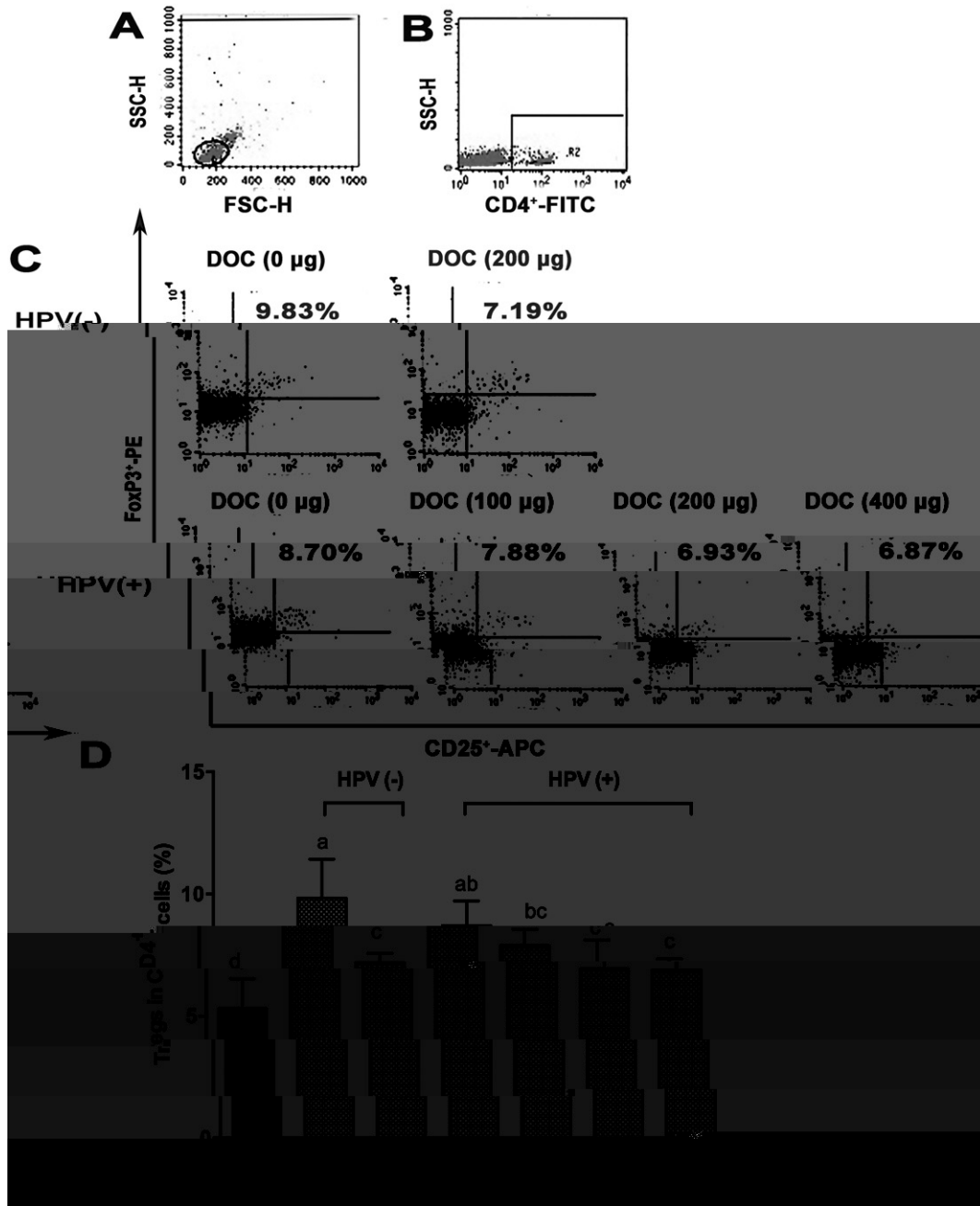


Fig. 7. Effect of DOC on the number of CD4⁺ Treg cells in HPV(-) and HPV(+) mice. (A) Flow cytometry plot of SSC-H vs FSC-H for HPV(-) mice. (B) Flow cytometry plot of SSC-H vs CD4⁺ FITC for HPV(-) mice. (C) Flow cytometry plots of FoxP3⁺ PE vs CD25⁺ APC for HPV(-) and HPV(+) mice treated with DOC (0, 100, 200, 400 µg). The percentage of CD4⁺ Treg cells is shown in the top right of each plot. (D) Bar graph showing the percentage of CD4⁺ Treg cells in HPV(-) and HPV(+) mice treated with DOC (0, 100, 200, 400 µg). The y-axis is labeled 'CD4⁺ Treg cells (%)'. Data are expressed as mean ± SD. Different letters indicate significant differences (P < 0.05).

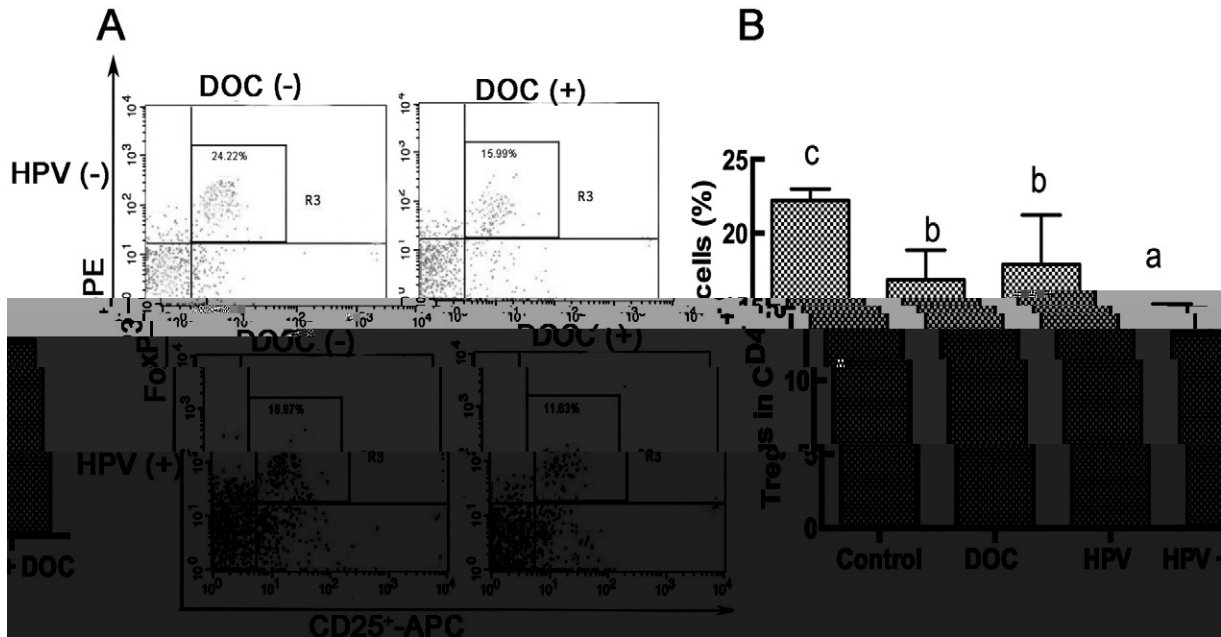


Fig. 8.

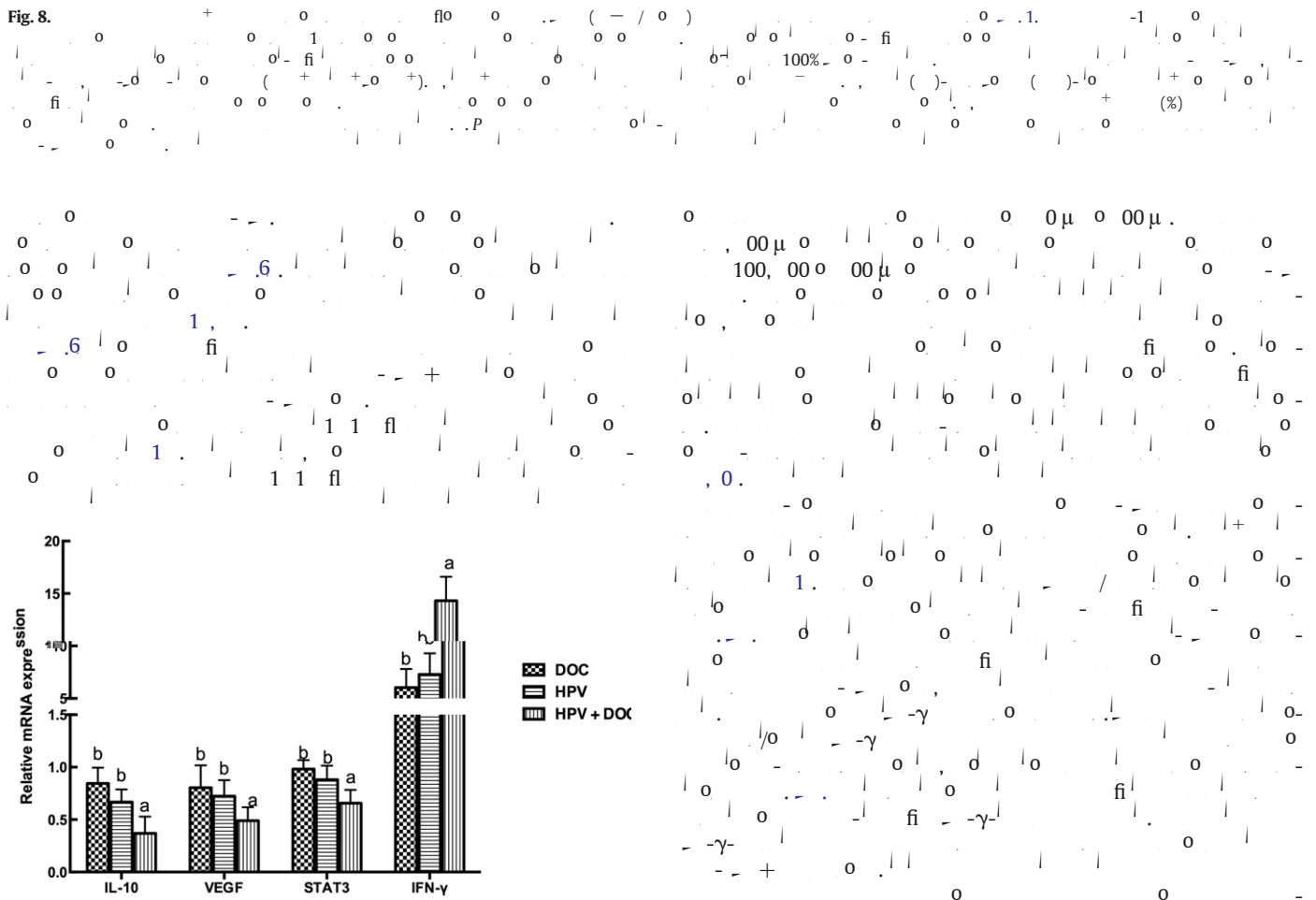
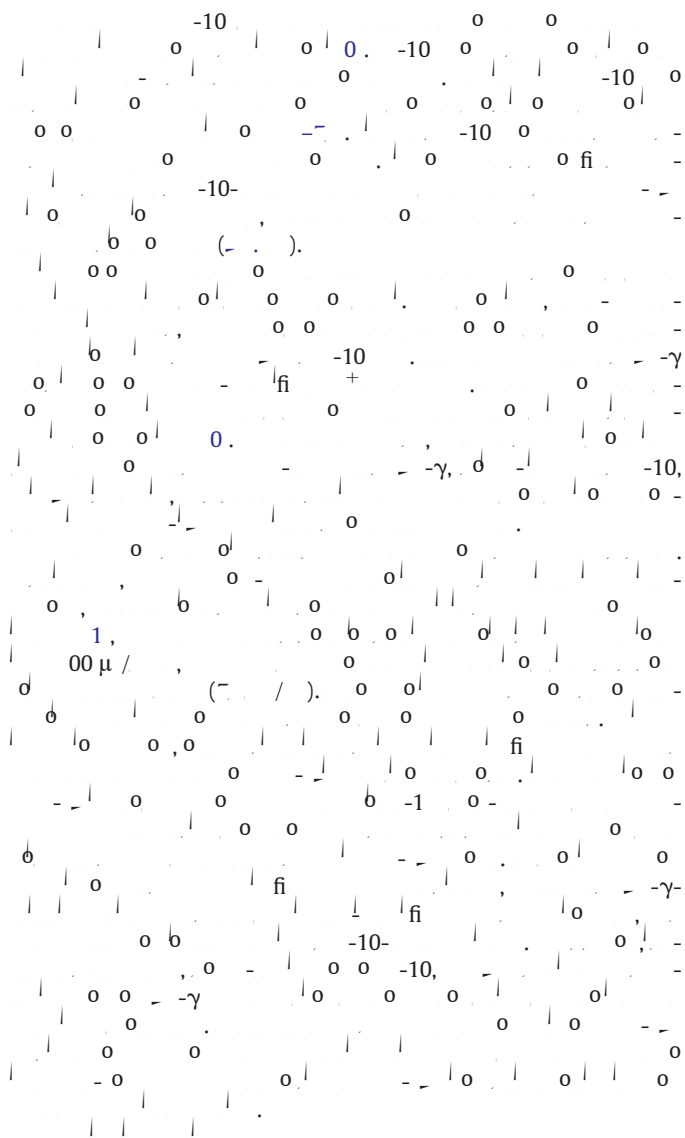
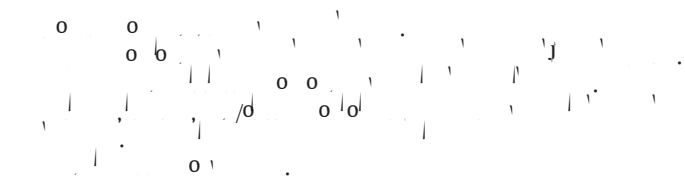


Fig. 9.



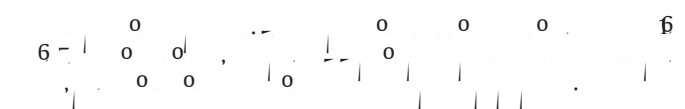
Authors' contributions



Conflict of interest



Acknowledgements



References

