

Supplementary Table S3. OHAT risk-of-bias tool for *in vitro* studies

No.	OHAT non-human studies domains	Included studies										
		Wali et al. [1]	Park et al. [2]	Gopalan et al. [3]	Patacsil et al. [4]	Xiong et al. [5]	Tuerdi et al. [6]	Tiwari et al. [7]	Comitato et al. [8]	Marelli et al. [9]	Fontana et al. [10]	Ambra et al. [11]
1	Was administered dose or exposure level adequately randomized??	++	++	++	++	++	++	++	++	++	++	++
2	Was allocation to study groups adequately concealed?	++	++	++	++	++	++	++	++	++	++	++
3	Were experimental conditions identical across study groups?	++	++	++	++	++	++	++	++	++	++	++
4	Were research personnel blinded to the study group during the study?	-*	-*	-*	-*	-*	-*	-*	-*	-*	-*	-*
5	Were outcome data complete without attrition or exclusion from analysis?	++	++	++	++	++	++	++	++	++	++	++
6	Can we be confident in the exposure characterization?	+ [#]	++	++	++	++	+**	+ [#]	+ [#]	+ [#]	-**, #	+ [#]
7	Can we be confident in the outcome assessment?	++	++	++	++	++	++	++	++	++	++	++
8	Were all measured outcomes reported?	++	++	++	++	++	++	++	++	++	++	++
9	Were there no other potential threats to internal validity?	++	++	++	++	++	++	++	++	++	++	-##
Overall appraisal: (Tier 1, Tier 2 or Tier 3)		1	1	1	1	1	1	1	1	1	1	1

Abbreviations:

++, Definitely low risk of bias; +, Low risk of bias; -, Probably high risk; -- Definitely high risk

Notes:

* The authors did not mention about experimental blinding; ** The authors did not disclose tocotrienol stock preparation or storage

The authors did not state the maximal concentration of tested solvent (vehicle control); ## The authors did not show the comparative control's result.

Adapted from OHAT Risk of Bias Rating Tool for Human and Animal Studies and emphasizes on 9 domains that relevant to *in vitro* studies [12,13]. Tier grouping was based on a previous study [13].

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