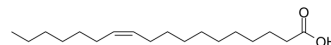


## cis-Vaccenic acid

Cat. No.:	HY-113427A
CAS No.:	506-17-2
Molecular Formula:	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>
Molecular Weight:	282.46
Target:	Others
Pathway:	Others
Storage:	Solution, -20°C, 2 years



### BIOLOGICAL ACTIVITY

<b>Description</b>	cis-Vaccenic acid, the antiviral extract from <i>Rhodopseudomonas capsulate</i> and the predominant active component of <i>Rhodopseudomonas capsulate</i> <sup>[1]</sup> , acts a potential fetal hemoglobin inducer <sup>[2]</sup> .									
<b>In Vitro</b>	<p>cis-Vaccenic acid (CVA) (50 μM, 70 μM and 100 μM) induces differentiation and up-regulates gamma globin synthesis in K562, JK1 and transgenic mice erythroid progenitor stem cells<sup>[2]</sup>. cis-Vaccenic acid (50 μM) also increased the percentage of benzidine positive JK-1 cell<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Differentiation Assay<sup>[2]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>K562 cells</td> </tr> <tr> <td>Concentration:</td> <td>50 μM, 70 μM and 100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 and 120 hours</td> </tr> <tr> <td>Result:</td> <td>Induced differentiation appeared to be concentration dependent in K562 cells with 50 μM CVA being the most effective concentration with more than 20% of the K562 cells showing positive for Benzidine stain after 48 h of incubation with CVA.</td> </tr> </table>		Cell Line:	K562 cells	Concentration:	50 μM, 70 μM and 100 μM	Incubation Time:	48 and 120 hours	Result:	Induced differentiation appeared to be concentration dependent in K562 cells with 50 μM CVA being the most effective concentration with more than 20% of the K562 cells showing positive for Benzidine stain after 48 h of incubation with CVA.
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### REFERENCES

[1]. H Hirotsani, et al. Inactivation of T5 phage by cis-vaccenic acid, an antivirus substance from *Rhodopseudomonas capsulata*, and by unsaturated fatty acids and related alcohols. *FEMS Microbiol Lett.* 1991 Jan 1;61(1):13-7.

[2]. Idowu A Aimola, et al. Cis-vaccenic acid induces differentiation and up-regulates gamma globin synthesis in K562, JK1 and transgenic mice erythroid progenitor stem cells. *Eur J Pharmacol.* 2016 Apr 5;776:9-18.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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