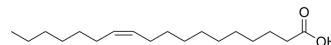


## cis-Vaccenic acid

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:	Antibiotic
Pathway:	Anti-infection
Storage:	Solution, -20°C, 2 years



### SOLVENT & SOLUBILITY

In Vitro	DMSO : ≥ 50 mg/mL (177.02 mM) * "≥" means soluble, but saturation unknown.
----------	---

### BIOLOGICAL ACTIVITY

**Description** cis-Vaccenic acid, the antiviral extract from *Rhodopseudomonas capsulate* and the predominant active component of *Rhodopseudomonas capsulate*<sup>[1]</sup>, acts a potential fetal hemoglobin inducer<sup>[2]</sup>.

**In Vitro** 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>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Differentiation Assay<sup>[2]</sup>

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.

### REFERENCES

[1]. H Hirovani, 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

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA