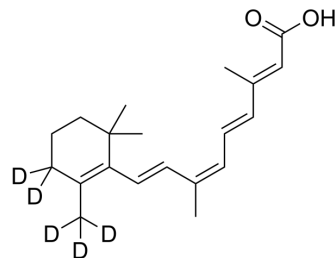


## 9-cis-Retinoic acid-d<sub>5</sub>

<b>Cat. No.:</b>	HY-132334S
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>23</sub> D <sub>5</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	305.47
<b>Target:</b>	RAR/RXR; Apoptosis
<b>Pathway:</b>	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Apoptosis
<b>Storage:</b>	-80°C, protect from light, stored under nitrogen



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (327.36 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.2736 mL	16.3682 mL	32.7364 mL
	5 mM	0.6547 mL	3.2736 mL	6.5473 mL
	10 mM	0.3274 mL	1.6368 mL	3.2736 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

9-cis-Retinoic acid-d<sub>5</sub> is the deuterium labeled 9-cis-Retinoic acid. 9-cis-Retinoic acid (ALRT1057), a vitamin A derivative, is a potent RAR/RXR agonist. 9-cis-Retinoic acid induces apoptosis, regulates cell cycle and has anticancer, anti-inflammatory and neuroprotection activities[1][2][3][4][5][6].

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.

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

### REFERENCES

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- [3]. Hua Yang, et al. Effects of 9-cis-retinoic Acid on the Proliferation and Apoptosis of Cutaneous T-cell Lymphoma Cells. *Anticancer Drugs*. 2019 Jan;30(1):56-64.

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- [4]. Zhiqing Yuan, et al. 9-cis-retinoic Acid Elevates MRP3 Expression by Inhibiting Sumoylation of RXR $\alpha$  to Alleviate Cholestatic Liver Injury. *Biochem Biophys Res Commun.* 2018 Sep 3;503(1):188-194.
- [5]. V M Manzano, et al. Human Renal Mesangial Cells Are a Target for the Anti-Inflammatory Action of 9-cis Retinoic Acid. *Br J Pharmacol.* 2000 Dec;131(8):1673-83.
- [6]. Gro H Mathisen, et al. Delayed Translocation of NGFI-B/RXR in Glutamate Stimulated Neurons Allows Late Protection by 9-cis Retinoic Acid. *Biochem Biophys Res Commun.* 2011 Oct 14;414(1):90-5.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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