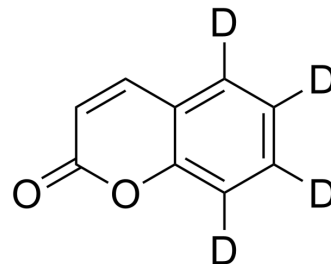


## Coumarin-d<sub>4</sub>

<b>Cat. No.:</b>	HY-N0709S		
<b>CAS No.:</b>	185056-83-1		
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>2</sub> D <sub>4</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	150.17		
<b>Target:</b>	Influenza Virus		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (665.91 mM)  
 DMSO : ≥ 100 mg/mL (665.91 mM)  
 H<sub>2</sub>O : 4 mg/mL (26.64 mM; Need ultrasonic)  
 H<sub>2</sub>O : 4 mg/mL (26.64 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		6.6591 mL	33.2956 mL	66.5912 mL
	5 mM		1.3318 mL	6.6591 mL	13.3182 mL
	10 mM		0.6659 mL	3.3296 mL	6.6591 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Coumarin-d<sub>4</sub> is the deuterium labeled Coumarin. Coumarin is the primary bioactive ingredient in Radix Glehniae, named Beishashen in China, which possesses many pharmacological activities, including anticancer, anti-inflammation and antiviral activities.

#### 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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[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Liu M, et al. Quantitative analysis of nine coumarins in rat urine and bile after oral administration of Radix Glehniae extract by high-performance liquid chromatography-electrospray ionization tandem mass spectrometry. *Biomed Chromatogr.* 2011 Jul;25(7):783-93.

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

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