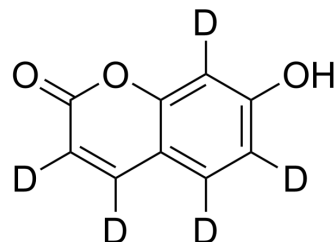


## Umbelliferone-d<sub>5</sub>

<b>Cat. No.:</b>	HY-N0573S		
<b>CAS No.:</b>	1215373-23-1		
<b>Molecular Formula:</b>	C <sub>9</sub> HD <sub>5</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	167.17		
<b>Target:</b>	Apoptosis; Endogenous Metabolite		
<b>Pathway:</b>	Apoptosis; Metabolic Enzyme/Protease		
<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 : ≥ 14.29 mg/mL (85.48 mM)  
 DMSO : ≥ 14.29 mg/mL (85.48 mM)  
 H<sub>2</sub>O : 0.1 mg/mL (0.60 mM; Need ultrasonic)  
 H<sub>2</sub>O : 0.1 mg/mL (0.60 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.9819 mL	29.9097 mL	59.8193 mL
	5 mM	1.1964 mL	5.9819 mL	11.9639 mL
	10 mM	0.5982 mL	2.9910 mL	5.9819 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Umbelliferone-d<sub>5</sub> is the deuterium labeled Umbelliferone. Umbelliferone (7-Hydroxycoumarin), a natural product of the coumarin family, is a fluorescing compound which can be used as a sunscreen agent.

#### 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]. Yu SM, et al. Umbelliferone exhibits anticancer activity via the induction of apoptosis and cell cycle arrest in HepG2 hepatocellular carcinoma cells. *Mol Med Rep.* 2015 Sep;12(3):3869-3873.

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

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