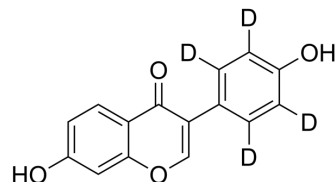


## Daidzein-d<sub>4</sub>

<b>Cat. No.:</b>	HY-N0019S												
<b>CAS No.:</b>	1219803-57-2												
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>6</sub> D <sub>4</sub> O <sub>4</sub>												
<b>Molecular Weight:</b>	258.26												
<b>Target:</b>	PPAR; Endogenous Metabolite												
<b>Pathway:</b>	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor												
<b>Storage:</b>	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
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	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 30 mg/mL (116.16 mM)

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DMF : ≥ 10 mg/mL (38.72 mM)

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Ethanol : ≥ 0.1 mg/mL (0.39 mM)

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\* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.8721 mL	19.3603 mL	38.7207 mL
	5 mM		0.7744 mL	3.8721 mL	7.7441 mL
	10 mM		0.3872 mL	1.9360 mL	3.8721 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Daidzein-d<sub>4</sub> is the deuterium labeled Daidzein. Daidzein is a soy isoflavone, which acts as a PPAR activator.

#### 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.

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## 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]. Kim E, et al. Daidzein Augments Cholesterol Homeostasis via ApoE to Promote Functional Recovery in Chronic Stroke. *J Neurosci.* 2015 Nov 11;35(45):15113-26.
- [3]. Sakamoto Y1, et al. The Dietary Isoflavone Daidzein Reduces Expression of Pro-Inflammatory Genes through PPAR $\alpha$ / $\gamma$  and JNK Pathways in Adipocyte and Macrophage Co-Cultures. *PLoS One.* 2016 Feb 22;11(2):e0149676.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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