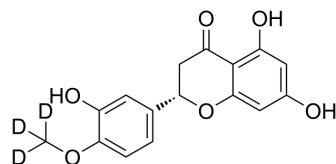


## Hesperetin-d<sub>3</sub>

<b>Cat. No.:</b>	HY-N0168S
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>11</sub> D <sub>3</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	305.3
<b>Target:</b>	p38 MAPK; Apoptosis; Autophagy
<b>Pathway:</b>	MAPK/ERK Pathway; Apoptosis; Autophagy
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Hesperetin-d <sub>3</sub> is the deuterium labeled Hesperetin[1]. Hesperetin is a natural flavanone, and acts as a potent and broad-spectrum inhibitor against human UGT activity. Hesperetin regulates apoptosis[2][3].
<b>In Vitro</b>	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

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Liu D, et al. Inhibitory Effect of Hesperetin and Naringenin on Human UDP-Glucuronosyltransferase Enzymes: Implications for Herb-Drug Interactions. *Biol Pharm Bull*. 2016;39(12):2052-2059.
- [3]. Shagirtha K, et al. Neuroprotective efficacy of hesperetin against cadmium induced oxidative stress in the brain of rats. *Toxicol Ind Health*. 2016 Nov 1. pii: 0748233716665301.

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

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