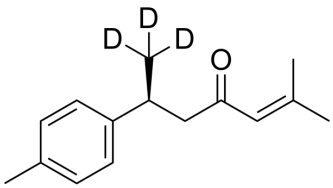
ar-Turmerone-d_3

Cat. No.:	HY-N6703S
Molecular Formula:	$C_{15}H_{17}D_3O$
Molecular Weight:	219.34
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	ar-Turmerone-d_3 is the deuterium labeled ar-Turmerone. ar-Turmerone ((+)-ar-Turmerone) is a major bioactive compound of the herb Curcuma longa with anti-tumorigenesis and anti-inflammatory activities[1][2][3]. ar-Turmerone activates apoptotic protein in human lymphoma U937 cells[3]. ar-Turmerone exerts positive modulation on murine DCs. ar-Turmerone induces NSC proliferation and constitutes a promising therapeutic agent for various neurologic disorders[4][5].
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[1]. 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;53(2):211-216.

[2]. Liju VB, et al. An evaluation of antioxidant, anti-inflammatory, and antinociceptive activities of essential oil from Curcuma longa. L. Indian J Pharmacol. 2011 Sep;43(5):526-31.

[3]. Yue GG, et al. Evaluation of in vitro anti-proliferative and immunomodulatory activities of compounds isolated from Curcuma longa. Food Chem Toxicol. 2010 Aug-Sep;48(8-9):2011-20.

[4]. Lee Y, et al. Activation of apoptotic protein in U937 cells by a component of turmeric oil. BMB Rep. 2009 Feb 28;42(2):96-100.

[5]. Yonggang T, et al. Maturation and upregulation of functions of murine dendritic cells (DCs) under the influence of purified aromatic-turmerone (AR). Hum Vaccin Immunother. 2012 Oct;8(10):1416-24.

[6]. Hucklenbroich J, et al. Aromatic-turmerone induces neural stem cell proliferation in vitro and in vivo. Stem Cell Res Ther. 2014 Sep 26;5(4):100.

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