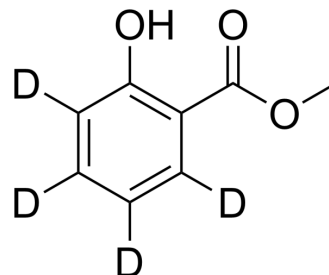


Methyl Salicylate-d₄

Cat. No.:	HY-Y0189S
CAS No.:	1219802-12-6
Molecular Formula:	C ₈ H ₄ D ₄ O ₃
Molecular Weight:	156.17
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methyl Salicylate-d ₄ is the deuterium labeled Methyl Salicylate[1]. Methyl Salicylate (Wintergreen oil) is a topical analgesic and anti-inflammatory agent. Also used as a pesticide, a denaturant, a fragrance ingredient, and a flavoring agent in food and tobacco products[2]. A systemic acquired resistance (SAR) signal in tobacco[3]. A topical nonsteroidal anti-inflammatory agent (NSAID). Methyl salicylate lactoside is a COX inhibitor[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 Feb;53(2):211-216.
- [2]. Greene T, et al. A critical review of the literature to conduct a toxicity assessment for oral exposure to methyl salicylate. *Crit Rev Toxicol*. 2017 Feb;47(2):98-120.
- [3]. Park SW, et al. Methyl salicylate is a critical mobile signal for plant systemic acquired resistance. *Science*. 2007 Oct 5318(5847):113-6.
- [4]. Lapczynski A, et al. Fragrance material review on methyl salicylate. *Food Chem Toxicol*. 200745 Suppl 1:S428-52.
- [5]. Xin W, et al. Methyl salicylate lactoside inhibits inflammatory response of fibroblast-like synoviocytes and joint destruction in collagen-induced arthritis in mice. *Br J Pharmacol*. 2014 Jul171(14):3526-38.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA