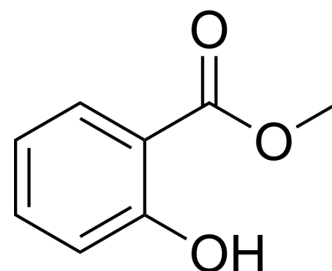


Methyl Salicylate

Cat. No.:	HY-Y0189	
CAS No.:	119-36-8	
Molecular Formula:	C ₈ H ₈ O ₃	
Molecular Weight:	152.15	
Target:	COX	
Pathway:	Immunology/Inflammation	
Storage:	Pure form	-20°C 3 years 4°C 2 years
	In solvent	-80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	Ethanol : 25 mg/mL (164.31 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.5725 mL	32.8623 mL	65.7246 mL
		5 mM	1.3145 mL	6.5725 mL	13.1449 mL
10 mM		0.6572 mL	3.2862 mL	6.5725 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (16.43 mM); Clear solution 2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (16.43 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	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 ^[1] . A systemic acquired resistance (SAR) signal in tobacco ^[2] . A topical nonsteroidal anti-inflammatory agent (NSAID). Methyl salicylate lactoside is a COX inhibitor ^[4] .
In Vitro	Methyl Salicylate is a systemic acquired resistance signal in tobacco. It (0-1 mg/L) esterases activity of salicylic acid-binding protein 2 (SABP2), which converts MeSA into salicylic acid (SA), is required for SAR signal perception in systemic tissue ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. 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.
- [2]. Park SW, et al. Methyl salicylate is a critical mobile signal for plant systemic acquired resistance. Science. 2007 Oct 5;318(5847):113-6.
- [3]. Lapczynski A, et al. Fragrance material review on methyl salicylate. Food Chem Toxicol. 2007;45 Suppl 1:S428-52.
- [4]. 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 Jul;171(14):3526-38.
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Caution: Product has not been fully validated for medical applications. For research use only.

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