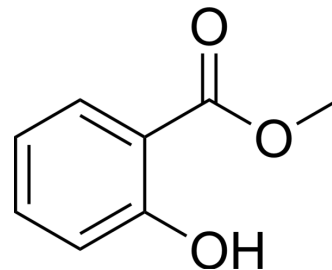


Methyl Salicylate

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	<ol style="list-style-type: none"> 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 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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