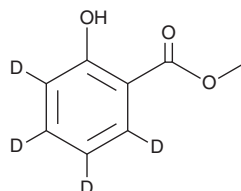


PRODUCT INFORMATION

Methyl Salicylate-d₄

Item No. 42145

CAS Registry No.: 1219802-12-6
Formal Name: methyl 2-hydroxybenzoate-3,4,5,6-d₄
Synonym: Methyl 2-hydroxybenzoate-d₄
MF: C₈H₄D₄O₃
FW: 156.2
Chemical Purity: ≥98% (Methyl Salicylate)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A 10 mg/ml solution in methyl acetate
Storage: -20°C
Stability: ≥1 year
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Methyl salicylate-d₄ is intended for use as an internal standard for the quantification of methyl salicylate by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

Methyl salicylate is a phenol that has been found in *Narcissus* and has diverse biological activities.¹⁻⁵ It scavenges free radicals in a Trolox equivalent antioxidant capacity (TEAC) assay (IC₅₀ = 0.27 μM).² Methyl salicylate (10 mg/ml) is active against *E. coli* and *S. aureus*.³ It activates transient receptor potential ankyrin 1 (Trpa1) and Trp vanilloid 1 (Trpv1) in CHO cells expressing mouse Trpa1 or rat Trpv1 when used at concentrations of 0.6 and 2 mM, respectively.⁴ Methyl salicylate does not induce gastric ulcers in cold-stressed rats and inhibits carrageenan-induced paw edema (ED₅₀ = 220 mg/kg) and yeast-induced fever in rats.⁵ Formulations containing methyl salicylate have been used as topical analgesics, oral antiseptics, and food additives.

References

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2. Battino, M., Ferreiro, M.S., Fattorini, D., et al. *In vitro* antioxidant activities of mouthrinses and their components. *J. Clin. Periodontol.* **29**(5), 462-467 (2002).
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4. Bandell, M., Story, G.M., Hwang, S.W., et al. Noxious cold ion channel TRPA1 is activated by pungent compounds and bradykinin. *Neuron* **41**(6), 849-857 (2004).
5. Rainsford, K.D. and Whitehouse, M.W. Anti-inflammatory/anti-pyretic salicylic acid esters with low gastric ulcerogenic activity. *Agents Actions* **10**(5), 451-456 (1980).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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