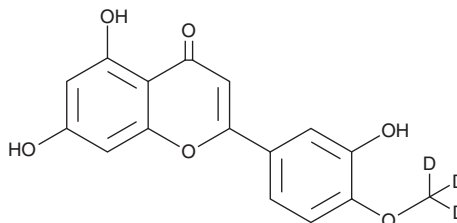


PRODUCT INFORMATION



Diosmetin-d₃ Item No. 30122

CAS Registry No.: 1189728-54-8
Formal Name: 5,7-dihydroxy-2-(3-hydroxy-4-methoxy-d₃-phenyl)-4H-1-benzopyran-4-one
Synonyms: Diosmetol-d₃, Luteolin 4'-methyl ester-d₃
MF: C₁₆H₉D₃O₆
FW: 303.3
Chemical Purity: ≥95% (Diosmetin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Synthetic



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

Laboratory Procedures

Diosmetin-d₃ is intended for use as an internal standard for the quantification of diosmetin (Item No. 18649) 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).

Diosmetin-d₃ is supplied as a solid. A stock solution may be made by dissolving the diosmetin-d₃ in the solvent of choice, which should be purged with an inert gas. Diosmetin-d₃ is slightly soluble in DMSO and methanol.

Description

Diosmetin is a flavonoid that has been found in citrus fruits and has diverse biological activities.^{1,2,3,4} It inhibits the cytochrome P450 (CYP) isoforms CYP1A1 and CYP1B1 (K_is = 89 and 16 nM, respectively).¹ Diosmetin prevents increases in erythrocyte reactive oxygen species (ROS) and malondialdehyde (MDA) levels induced by AAPH (Item No. 82235) in a concentration-dependent manner.² It reduces tumor growth and tumor blood vessel density in a B16/F10 murine melanoma model when administered at a dose of 1 mg/kg twice per day.³ Diosmetin (0.5 mg/kg) inhibits lung goblet cell hyperplasia and collagen deposition and decreases the number of eosinophils and neutrophils in bronchoalveolar lavage fluid (BALF) in a mouse model of chronic asthma induced by ovalbumin.⁴

References

1. Androutsopoulos, V.P., Papakyriakou, A., Vourloumis, D., *et al.* *Bioorg. Med. Chem.* **19(9)**, 2842-2849 (2011).
2. Liao, W., Ning, Z., Chen, L., *et al.* *J. Agric. Food Chem.* **62(34)**, 8648-8654 (2014).
3. Choi, J., Lee, D.H., Park, S.Y., *et al.* *Biomed. Pharmacother.* **117**, 109091 (2019).
4. Ge, A., Liu, Y., Zeng, X., *et al.* *Acta Biochim. Biophys. Sin. (Shanghai)* **47(8)**, 604-611 (2015).

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.

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