

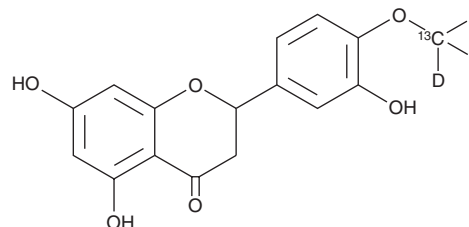
PRODUCT INFORMATION



Hesperetin-¹³C-d₃

Item No. 28806

CAS Registry No.: 2750534-85-9
Formal Name: 2,3-dihydro-5,7-dihydroxy-2-(3-hydroxy-(4-methoxy-¹³C-d₃)phenyl)-4H-1-benzopyran-4-one
MF: C₁₅[¹³C]H₁₁D₃O₆
FW: 306.3
Chemical Purity: ≥95% (mixture of isomers)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Hesperetin-¹³C-d₃ is intended for use as an internal standard for the quantification of hesperetin (Item No. 10006084) 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).

Hesperetin-¹³C-d₃ is supplied as a solid. A stock solution may be made by dissolving the hesperetin-¹³C-d₃ in the solvent of choice, which should be purged with an inert gas. Hesperetin-¹³C-d₃ is soluble in DMSO, dimethyl formamide, and a 1:1 solution of acetonitrile:methanol.

Description

Hesperetin is a flavonoid that has been found in citrus fruits and has diverse biological activities.¹⁻⁵ It reduces ApoB protein levels, ACAT2 expression, and LDL degradation in HepG2 cells when used at concentrations ranging from 10 to 200 μM.¹ Hesperetin inhibits IgG-induced β-hexosaminidase release from RBL-2H3 cells (IC₅₀ = 0.099 mg/ml).² It inhibits LPS-induced nitric oxide (NO) production and reduces levels of inducible nitric oxide synthase (iNOS), IL-6, and IL-1β in BV-2 microglial cells.³ Hesperetin (5 mg/kg) inhibits passive cutaneous anaphylaxis in mice.² It reduces body weight loss, colon shortening, and ulcer severity in a mouse model of TNBS-induced ulcerative colitis.⁴ Hesperetin reduces cortical and hippocampal neuronal apoptosis and increases time spent in the target quadrant in the Morris water maze in a mouse model of LPS-induced neuronal inflammation.⁵

References

1. Wilcox, L.J., Borradaile, N.M., de Dreu, L.E., et al. *J. Lipid Res.* **42**(5), 725-734 (2001).
2. Lee, N.K., Choi, S.H., Park, S.H., et al. *Pharmacology* **71**(4), 174-180 (2004).
3. Jo, S.H., Kim, M.E., Cho, J.H., et al. *Arch. Pharm. Res.* **42**(8), 695-703 (2019).
4. He, W., Liu, M., Li, Y., et al. *Eur. J. Pharmacol.* **857**, 172456 (2019).
5. Muhammad, T., Ikram, M., Ullah, R., et al. *Nutrients* **11**(3), 648 (2019).

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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