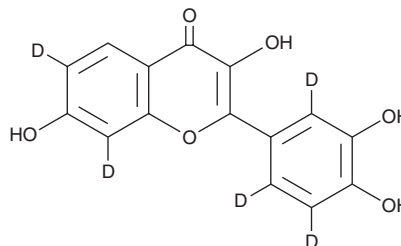


PRODUCT INFORMATION



Fisetin-d₅ Item No. 34706

CAS Registry No.: 2909407-29-8
Formal Name: 2-(3,4-dihydroxyphenyl-2,5,6-d₃)-3,7-dihydroxy-4H-1-benzopyran-4-one-6,8-d₂
MF: C₁₅H₅D₅O₆
FW: 291.3
Chemical Purity: ≥98% (Fisetin)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤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

Fisetin-d₅ is intended for use as an internal standard for the quantification of fisetin (Item No. 15246) 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).

Fisetin-d₅ is supplied as a solid. A stock solution may be made by dissolving the fisetin-d₅ in the solvent of choice, which should be purged with an inert gas. Fisetin-d₅ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of fisetin-d₅ in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Fisetin is a flavonoid that has been found in various fruits and vegetables and has diverse biological activities.¹⁻⁴ It scavenges radicals in a Trolox equivalent antioxidant capacity (TEAC) assay and inhibits oxidative burst induced by N-Formyl-Met-Leu-Phe (fMLP; Item No. 21495) in isolated human polymorphonuclear neutrophils (PMNs) when used at a concentration of 10 μM.^{1,3} Fisetin (10-60 μM) induces cell cycle arrest at the G₁ phase and apoptosis in, as well as inhibits the proliferation of, LNCaP prostate cancer cells.² It inhibits LPS-induced production of nitrite, prostaglandin E₂ (PGE₂; Item No. 14010), and NF-κB activation in RAW 264.7 cells.³ Fisetin (1 mg/animal) reduces tumor growth in a CWR22Ru1 prostate cancer mouse xenograft model.⁴

References

1. Khan, N., Syed, D.N., Ahmad, N., *et al.* Fisetin: A dietary antioxidant for health promotion. *Antioxid. Redox Signal.* **19(2)**, 151-162 (2013).
2. Khan, N., Afaq, F., Syed, D.N., *et al.* Fisetin, a novel dietary flavonoid, causes apoptosis and cell cycle arrest in human prostate cancer LNCaP cells. *Carcinogenesis* **29(5)**, 1049-1056 (2008).
3. Wang, L., Tu, Y.-C., Lian, T.-W., *et al.* Distinctive antioxidant and antiinflammatory effects of flavonols. *J. Agric. Food Chem.* **54(26)**, 9798-9804 (2006).
4. Khan, N., Asim, M., Afaq, F., *et al.* A novel dietary flavonoid fisetin inhibits androgen receptor signaling and tumor growth in athymic nude mice. *Cancer Res.* **68(20)**, 8555-8563 (2008).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM