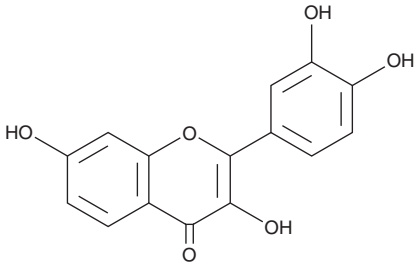
PRODUCT INFORMATION

Fisetin

Item No. 15246

CAS Registry No.:	528-48-3
Formal Name:	2-(3,4-dihydroxyphenyl)-3,7-dihydroxy-4H-1-benzopyran-4-one
Synonyms:	CI-75620, NSC 407010, NSC 656275
MF:	$C_{15}H_{10}O_6$
FW:	286.2
Purity:	≥90%
UV/Vis.:	λ_{max}: 250, 320, 364 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

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

Fisetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fisetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Fisetin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

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-methionyl-leucyl-phenylalanine (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 G_1 phase and apoptosis in, as well as inhibits the proliferation of, LNCaP prostate cancer cells.[2] It inhibits LPS-induced production of nitrite, prostaglandin E_2 (PGE_2; Item No. 14010), and NF-κB activation in RAW 264.7 cells.[3] Fisetin (1 mg/animal) reduces tumor growth in a CWR22Rυ1 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).

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