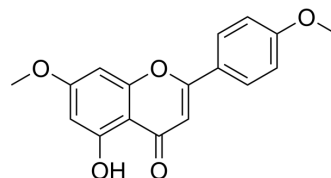


7,4'-Di-O-methylapigenin

Cat. No.:	HY-N2144
CAS No.:	5128-44-9
Molecular Formula:	C ₁₇ H ₁₄ O ₅
Molecular Weight:	298.29
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	<div> <div>Powder</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> </div> <div> <div>In solvent</div> <div>-80°C 2 years</div> <div>-20°C 1 year</div> </div>



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5 mg/mL (16.76 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (ultrasonic;warming) (insoluble)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		3.3524 mL	16.7622 mL	33.5244 mL
	5 mM		0.6705 mL	3.3524 mL	6.7049 mL
	10 mM		0.3352 mL	1.6762 mL	3.3524 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

The compound 7,4'-Di-O-methylapigenin may be partly responsible for the reported antifungal activity of *C. zeyheri*, and may serve as a potential source of lead compounds that can be developed as antifungal phytomedicines. And it also showed inhibition of the drug efflux pumps (with IC₅₀ = 51.64 µg/ml). IC₅₀: 51.64 µg/ml (Candida albicans drug efflux pumps) [2] In vitro: The isolated 7,4'-Di-O-methylapigenin was further investigated for its inhibitory activity on ABC drug efflux pumps in *C. albicans* by monitoring an increase in ciprofloxacin, assessing the level of its accumulation, in response to reserpine. There was a higher accumulation of ciprofloxacin in *Candida* cells in the presence of 7,4'-Di-O-methylapigenin than with reserpine. The compound 7,4'-Di-O-methylapigenine demonstrated the activity in a dose-dependent manner with IC₅₀ value of 51.64 µg/ml. These results support those obtained from synergism assays where by the underlying synergistic antifungal mechanisms could be due to blockage of ABC efflux pumps and increasing the susceptibility of *Candida* to miconazole. [2] In vivo: In searching for natural products as potential anti-inflammatory agents, 7,4'-Di-O-methylapigenin wasn't evaluated in vivo for its ability to inhibit acute inflammation. [1]

IC₅₀ & Target

Human Endogenous Metabolite

REFERENCES

- [1]. Alvarez, M.E. et al. Phytochemical study and anti-inflammatory properties of *Lampaya hieronymi* Schum. ex Moldenke. *Farmaco*. Jun-Jul;55(6-7):502-5. doi:10.1016/S0014-827X(00)00067-7(2000).
- [2]. Mangoyi, R., Midiwo, J. & Mukanganyama, S. Isolation and characterization of an antifungal compound 5-hydroxy-7,4'-dimethoxyflavone from *Combretum zeyheri*. *BMC complementary and alternative medicine* 15, 405, doi:10.1186/s12906-015-0934-7 (2015).
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Caution: Product has not been fully validated for medical applications. For research use only.

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