

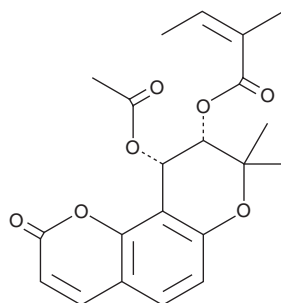
PRODUCT INFORMATION



(+)-Praeruptorin A

Item No. 24915

CAS Registry No.: 73069-27-9
Formal Name: (2Z)-2-methyl-2-butenoic acid, (9S,10S)-10-(acetyloxy)-9,10-dihydro-8,8-dimethyl-2-oxo-2H,8H-benzo[1,2-b:3,4-b']dipyran-9-yl ester
MF: C₂₁H₂₂O₇
FW: 386.4
Purity: ≥95%
UV/Vis.: λ_{max}: 219, 324 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

(+)-Praeruptorin A is supplied as a crystalline solid. A stock solution may be made by dissolving the (+)-praeruptorin A in the solvent of choice, which should be purged with an inert gas. (+)-Praeruptorin A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (+)-praeruptorin A in these solvents is approximately 10, 20, and 30 mg/ml, respectively.

(+)-Praeruptorin A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (+)-praeruptorin A should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (+)-Praeruptorin A has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(+)-Praeruptorin A is a coumarin derivative originally isolated from *P. praeruptorum*.¹ It prevents LPS-induced increases in IL-1β and TNF-α in a concentration-dependent manner when used at concentrations ranging from 6.25 to 100 μM and IL-6 at concentrations ranging from 25 to 100 μM.² It inhibits potassium chloride-induced contraction of isolated rabbit trachea by 50 and 100% when used at concentrations of 4.8 and 30 μM, respectively.³ Topical administration of (+)-praeruptorin A (0.3 μmol/cm²) reduces edema by 22% in a croton oil mouse model of inflammation.⁴

References

1. Zheng-Xiong, G., Huang, B.-S., She, Q.-L., *et al.* Study on the chemical constituents of the Chinese medicinal plant, *Peucedanum praeruptorum* Dunn. Structures of four new coumarins. *Yaoxue Xuebao* **14(8)**, 486-496 (1979).
2. Lee, J., Lee, Y.J., Kim, J., *et al.* Pyranocoumarins from root extracts of *Peucedanum praeruptorum* Dunn with multidrug resistance reversal and anti-inflammatory activities. *Molecules* **20(12)**, 20967-20978 (2015).
3. Zhao, N.C., Jin, W.B., Zhang, X.H., *et al.* Relaxant effects of pyranocoumarin compounds isolated from a Chinese medical plant, Bai-Hua Qian-Hu, on isolated rabbit tracheas and pulmonary arteries. *Biol. Pharm. Bull.* **22(9)**, 984-987 (1999).
4. Menghini, L., Epifano, F., Genovese, S., *et al.* Antiinflammatory activity of coumarins from *Ligusticum lucidum* Mill. subsp. *cuneifolium* (Guss.) Tammaro (Apiaceae). *Phytother. Res.* **24(11)**, 1697-1699 (2010).

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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