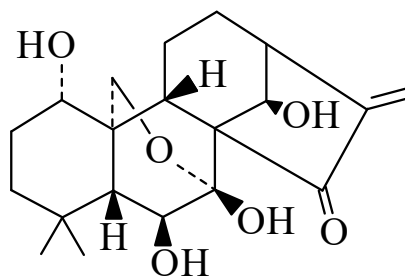




>>Entry Name: 7,20-Epoxy-1,6,7,14-tetrahydroxy-16-kauren-15-one



Related CAS Registry Numbers(s): 18288-82-9 28957-10-0

Molecular Formula: C₂₀H₂₈O₆

Molecular Weight: 364.438

Accurate Mass: 364.18859

Percentage Composition: C 65.92%; H 7.74%; O 26.34%

>>Variant: (*ent*-1 β ,6 α ,14 α)-form

Synonym(s): Isodonol. Oridonin. Rubescensin. Rubescensin A

CAS Registry Number: 28957-04-2

Molecular Formula: C₂₀H₂₈O₆

Molecular Weight: 364.438

Accurate Mass: 364.18859

Percentage Composition: C 65.92%; H 7.74%; O 26.34%

Biological Source: Constit. of *Isodon trichocarpus*, *Isodon japonicus* and *Rabdosia* spp.

Use/Importance: Shows activity against gram-positive bacteria and against *Sarcina lutea*; also shows antineoplastic activity against Ehrlich ascites carcinoma. Insect growth inhibitor

Physical Description: Cryst. (MeOH)

Development Status: Has undergone clin. testing in China

Melting Point: Mp 248-249°

Optical Rotation: $[\alpha]_D^{24}$ -47 (c, 0.1 in EtOH)

Calculated Log P Data: Log P -1.72 (uncertain value) (calc)

Hazard & Toxicity: LD₅₀ (mus, ipr) 35 mg/kg. Mutagenic props.

>>Derivative: 1-Ac

Synonym(s): *ent*-1 β -Acetoxy-7,20-epoxy-6 α ,7,14 α -trihydroxy-16-kauren-15-one. Lasiokaurin. Lasiodin‡

CAS Registry Number: 28957-08-6

Molecular Formula: C₂₂H₃₀O₇

Molecular Weight: 406.475

Accurate Mass: 406.199155

Percentage Composition: C 65.01%; H 7.44%; O 27.55%

Biological Source: Isol. from *Isodon lasiocarpus*, *Rabdosia lasiocarpa*, *Rabdosia japonica* and *Rabdosia macrophylla*

Use/Importance: Shows antibacterial activity, esp. against *Sarcina lutea*; also shows antineoplastic activity against Ehrlich ascites carcinoma

Physical Description: Cryst. (MeOH)

Melting Point: Mp 228-229°

Optical Rotation: $[\alpha]_D^{17}$ -94 (c, 1 in Py)

Solubility: BERDY SOL: Sol. MeOH, Et₂O; poorly sol. H₂O

Calculated Log P Data: Log P -0.77 (uncertain value) (calc)

UV: [neutral] $\lambda_{\max}$ 238 (ϵ 8000) (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 203 (ϵ 4100); 238 (ϵ 8100) (EtOH) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ipr) 47.5 mg/kg

References:

- Mori, S. *et al.*, *Chem. Pharm. Bull.*, 1970, **18**, 871; 1972, **20**, 1752
Kubo, I. *et al.*, *Agric. Biol. Chem.*, 1974, **38**, 1261
Kubo, I. *et al.*, *Tetrahedron*, 1974, **30**, 615
Fujita, E. *et al.*, *Chem. Pharm. Bull.*, 1976, **24**, 2118; 1981, **29**, 3208
Fujita, E. *et al.*, *Experientia*, 1976, **32**, 203
Experientia, Honan Inst. of Med. Science *et al.*, *CA*, 1978, **88**, 115378p, (*isol*)
Taniguchi, M. *et al.*, *Agric. Biol. Chem.*, 1979, **43**, 71
Fujita, T. *et al.*, *Planta Med.*, 1988, **54**, 414, (*sar*)
Fuji, K. *et al.*, *Chem. Pharm. Bull.*, 1989, **37**, 1472, (*activity*)
Zhou, W.-S. *et al.*, *Sci. China, Ser. B*, 1992, **35**, 194, (*synth*, *Oridonin*)
Osawa, K. *et al.*, *Chem. Pharm. Bull.*, 1994, **42**, 922, (*isol*, *pmr*)
Xian-Rong, W. *et al.*, *Phytochemistry*, 1995, **38**, 921, (*Oridonin*, *pmr*, *cmr*)