

PRODUCT INFORMATION

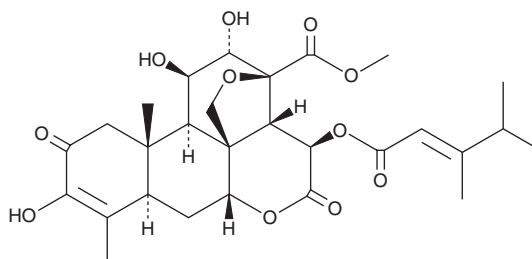


Bruceantin

Item No. 33973

CAS Registry No.: 41451-75-6
Formal Name: (11 β ,12 α ,15 β)-15-[[[(2E)-3,4-dimethyl-1-oxo-2-penten-1-yl]oxy]-13,20-epoxy-3,11,12-trihydroxy-2,16-dioxo-picras-3-en-21-oic acid, methyl ester
Synonyms: (-)-Bruceantin, NCI 165563, NSC 165563

MF: C₂₈H₃₆O₁₁
FW: 548.6
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 222, 280 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Brucea antidysenterica*



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

Laboratory Procedures

Bruceantin is supplied as a solid. A stock solution may be made by dissolving the bruceantin in the solvent of choice, which should be purged with an inert gas. Bruceantin is soluble in DMSO.

Description

Bruceantin is a quassinoid originally isolated from *B. antidysenterica* that has diverse biological activities.¹⁻³ It inhibits protein synthesis in HeLa cells, reticulocytes, and reticulocyte lysates (IC₅₀s = 30, 40, and 1,600 nM, respectively).¹ Bruceantin is active against chloroquine-sensitive and -resistant strains of *P. falciparum* (IC₅₀s = 8 and 13 nM, respectively).² It induces apoptosis in HL-60 leukemia and RPMI-8226 multiple myeloma cells (IC₅₀s = 12.2 and 12.8 nM, respectively).³ Bruceantin (5 mg/kg) induces tumor regression in an RPMI-8226 mouse xenograft model.

References

1. Liao, L.L., Kupchan, S.M., and Horwitz, S.B. Mode of action of the antitumor compound bruceantin, an inhibitor of protein synthesis. *Mol. Pharmacol.* **12**(1), 167-176 (1976).
2. Ekong, R.M., Kirby, G.C., Patel, G., et al. Comparison of the *in vitro* activities of quassinoids with activity against *Plasmodium falciparum*, anisomycin and some other inhibitors of eukaryotic protein synthesis. *Biochem. Pharmacol.* **40**(2), 297-301 (1990).
3. Cuendet, M. and Pezzuto, J.M. Antitumor activity of bruceantin: An old drug with new promise. *J. Nat. Prod.* **67**(2), 269-272 (2004).

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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