Natural Products



Riddelline Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Riddelline

Catalog No.: CFN00421

Cas No.: 23246-96-0

Purity: > 95%

M.F: C₁₈H₂₃NO₆

M.W: 349.38



Physical Description: Powder

Synonyms: (15Z)-12,18-Dihydroxy-13,19-didehydrosenecionan-11,16-dione;

 $[1,6] Dioxacyclododecino [2,3,4-gh] pyrrolizine -2,7-dione, 3-ethylidene -3,4,5,6,9,11,13,14,14,14,14,14] \\ [1,6] Dioxacyclododecino [2,3,4-gh] pyrrolizine -2,7-dione, 3-ethylidene -3,4,5,6,9,11,13,14,14,14,14] \\ [1,6] Dioxacyclododecino [2,3,4-gh] pyrrolizine -2,7-dione, 3-ethylidene -3,4,5,6,9,11,13,14,14] \\ [1,6] Dioxacyclododecino [2,6] Dioxacyclododeci$

4a,14b-decahydro-6-hydroxy-6-(hydroxymethyl)-5-methylene-, (3Z,6S,14aR,14bR)-;

12,18-Dihydroxy-13,19-didehydrosenecionan-11,16-dione.

[Intended Use]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Synthetic precursor compounds;
- 4. Intermediates & Fine Chemicals;
- 5. Others.

[Source]

[Biological Activity or Inhibitors]

Riddelliine is a representative naturally occurring genotoxic pyrrolizidine alkaloid, it induces liver tumors in rats through a genotoxic mechanism and the eight dehydroretronecine (DHR)-derived DNA adducts are likely to contribute to liver tumor development.^[1]

Both hepatocytes and endothelial cells are targets of riddelliine-induced injury, the damage to both populations of cells may lead to dysregulated vascular endothelial growth factor (VEGF) synthesis by hepatocytes and activation of KDR/flk-1 by endothelium leading to the induction of sustained endothelial cell proliferation, culminating in the development of hepatic hemangiosarcoma.^[2]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[3]

Mobile phase: Methanol- 20mM sodium phosphate buffer(pH 5.0),gradient elution ; Flow rate: 1.0 ml/min; Column temperature: Room Temperature; The wave length of determination: 220 nm.

[Storage]

 $2-8^{\circ}$ C, Protected from air and light, refrigerate or freeze.

[References]

[1]Yang Y C, Yan J, Doerge R. D., et al. Chem. Res. Toxicol., 2001, 14(1):101-9.

[2] Moyer C, Allen D, Basabe A, et al. Exp. Toxicol. Pathol., 2004, 55(6):455-65.

[3] Chou M W, Wang Y P, Yan J, et al. Toxicol. Lett., 2004, 145(3):239-47.

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