

PRODUCT DATA SHEET

Code No.: BIA-P1770

Pack sizes: 1 mg, 5 mg

Synonyms : (-)-Polygodial, (-)-Tadeonal, Drim-7-ene-11,12-dial, Poligodial, Tadeonal

Specifications

Polygodial

CAS # : 6754-20-7 Molecular Formula : $C_{15}H_{22}O_2$ Molecular Weight : 234.3

Source : Tasmannia lanceolata

Appearance : White solid

Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Polygodial is a sesquiterpene dialdehyde first isolated from Persicaria hydropiper (syn. Polygonum hydropiper) by Loder at CSIRO, Australia in 1962. Polygodial is widely distributed, occurring in the roots, bark and leaves of several trees, in plants and liverworts, and, more surprisingly, in marine sponges and nudibranches. Polygodial has potent antibiotic, antifungal and insecticidal activity, and exhibits cytotoxic, anti-inflammatory and glucocorticoid activities. It has been reported as a plant and insect growth regulator and also possesses anti-nociceptive effects mediated via inhibition of TRPV1.

References

- 1. The structure of polygodial: A new sesquiterpene dialdehyde from Polygonum hydropiper L. Barnes C.S. & Loder J.W., Aust. J. Chem. 1962, 15, 322.
- 2. Occurrence, biological activity and synthesis of drimane sesquiterpenoids. Jansen B.J.M. & de Groot Ae., Nat. Prod. Rep. 2004, 21, 449.
- 3. Structural requirements for the antifungal activities of natural drimane sesquiterpenes and analogues, supported by conformational and electronic studies. Derita M. et al., Molecules 2013, 18, 2029.
- 4. Effect of drimenol and synthetic derivatives on growth and germination of Botrytis cinerea: Evaluation of possible mechanism of action. Robles-Kelly C. et al., Pestic. Biochem. Physiol. 2017, 141, 50.
- 5. Antifeedant effect of polygodial and drimenol derivatives against Spodoptera frugiperda and Epilachna paenulata and quantitative structure-activity analysis. Montenegro I.J. et al., Pest Manag. Sci. 2018, 74, 1623.
- 6. Comparative study on the larvicidal activity of drimane sesquiterpenes and nordrimane compounds against Drosophila melanogaster til-til. Montenegro I. et al., Molecules 2013, 18, 4192.

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