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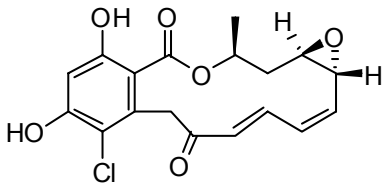
PRODUCT DATA SHEET

Radicicol

Code: **BIA-R1148**

Pack sizes: **1 mg, 5 mg**



Synonyms : **Monorden**

Specifications

CAS #	:	**12772-57-5**
Molecular Formula	:	**$C_{18}H_{17}ClO_6$**
Molecular Weight	:	**364.8**
Source	:	**Unidentified fungus MST-FP2087**
Appearance	:	**White solid**
Purity	:	**> 99% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility**

Application Notes

Radicicol is a resorcylic acid lactone produced by several fungal species that exhibits broad spectrum antifungal and antitumor activity. Radicicol has been the subject of extensive investigation and been shown to inhibit protein tyrosine kinase, induce the differentiation of HL-60 cells into macrophages, block cell cycle at G1 and G2, suppress NIH 3T3 cell transformation by diverse oncogenes such as *src*, *ras* and *mos* and also suppresses the expression of mitogen-inducible cyclooxygenase-2. As a cell differentiation modulator, radicicol has anti-angiogenic activity in vivo, inhibiting the proliferation of plasminogen activator production by vascular endothelial cells.

References

1. Some metabolites of Nectria radicicola Gerlach & Nilsson (syn. Cylindrocarpon radicicola Wr.): The structure of radicicol (monorden) Mirrington, R.N. et al., Aust. J. Chem., 1966, 19, 1265
2. Induction of differentiation of HL-60 cells by the anti-fungal antibiotic, Radicicol. Shimada, Y., et al. J. Antibiot. 1995, 48, 824.
3. Radicicol inhibits tyrosine phosphorylation of the mitotic Src substrate Sam68 and retards subsequent exit from mitosis of Src-transformed cells. Pillay, I., et al. Cell. Growth Differ. 1996, 7, 1487.
4. Radicicol a microbial cell differentiation modulator inhibits in vivo angiogenesis. Oikawa, T., et al. Eur. J. Pharmacol. 1993, 241, 221.
5. Suppression of RAS and MOS transformation by radicicol. Zhao, J.F., et al. Oncogene 1995, 11, 161.
6. Chemistry and biology of resorcylic acid lactones. Winssinger N. and Barluenga S.. Chem. Commun., 2007, 22 - 36

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