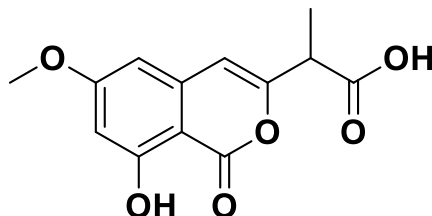


PRODUCT DATA SHEET

NM-3

(Antitumor, angiogenesis inhibitor)



Synonym

2-(8-hydroxy-6-methoxy-1-oxo-1*H*-isochromen-3-yl)propanoic acid

Specifications

Code No.	: 16332
CAS#	: 181427-78-1
Molecular Formula	: C ₁₃ H ₁₂ O ₆
Molecular Weight	: 264.233
Source	: Chemically synthesized
Supplied as	: Powder
Purity	: >98 % (HPLC)
Long Term Storage	: at -20 °C
Solubility	: Soluble in MeOH, DMSO

The chemical structure was confirmed by NMR and HRMS.

Application Notes

NM-3 is a biologically stable synthetic analogue of cytogenin.¹⁻²⁾ Oral administration of NM-3 (0.3-10 mg/kg/day) to mice dose-dependently suppressed angiogenesis induced by S-180 tumor cells.³⁾ The combined treatment with NM-3 and chemotherapeutic agents (including 5-FU, docetaxel and ionizing radiation) significantly reduced mean tumor volume (including HT29, MKN28, MCF-7, LLC and A549) compared to either treatment alone, with no effects on body weight changes.⁴⁻⁶⁾

References

- 1) Synthesis and biological evaluation of cytogenin derivatives. Matsumoto N, *et al. J Antibiot.* 2001 **54**(3) 285-296.
- 2) Convenient total synthesis of NM-3, an antiangiogenesis agent, and its optical resolution. Tsuchida T, *et al. J Antibiot.* 2003 **56**(1) 38-41.
- 3) Inhibition of angiogenesis by a new isocoumarin, NM-3. Nakashima T, *et al. J Antibiot.* 1999 **52**(4) 426-428.
- 4) NM-3, an isocoumarin, increases the antitumor effects of radiotherapy without toxicity. Salloum RM, *et al. Cancer Res.* 2000 **60**(24) 6958-6963.
- 5) Antineoplastic effects of chemotherapeutic agents are potentiated by NM-3, an inhibitor of angiogenesis. Reimer CL, *et al. Cancer Res.* 2002 **62**(3) 789-795.
- 6) The angiogenesis inhibitor NM-3 is active against human NSCLC xenografts alone and in combination with docetaxel. Agata N, *et al. Cancer Chemother Pharmacol.* 2005 **56**(6) 610-614.