

Product Name: AT 101

Catalog No.: 3367

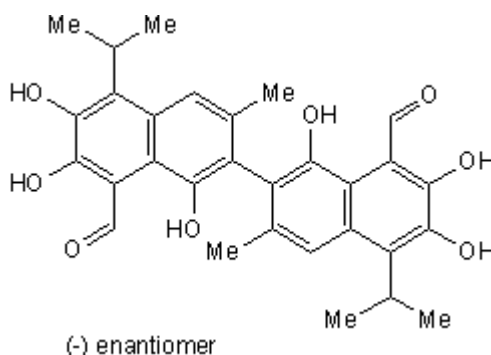
Batch No.: 2

CAS Number: 90141-22-3

IUPAC Name: (-)-1,1',6,6',7,7'-Hexahydroxy-3,3'-dimethyl-5,5'-bis(1-methylethyl)-[2,2'-binaphthalene]-8,8'-dicarboxaldehyde

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₃₀O₈
Batch Molecular Weight: 518.56
Physical Appearance: yellow powder
Solubility: DMSO to 100 mM
ethanol to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.18 (Ethyl acetate)
HPLC: Shows 99.5% purity
Chiral HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -324 (Concentration = 1, Solvent = Chloroform)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.4	5.79	
Found	69.37	5.85	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

R-(-)-enantiomer of gossypol (Cat. No. 1964). Mimics the BH3 domains of Bcl-2, Bcl-XL and Mcl-1. Disrupts heterodimerization of Bcl-2 with proapoptotic family members. Induces apoptosis in vitro through activation of caspase-9; cytotoxic to multiple myeloma and drug-resistant cell lines. Delays onset of androgen-independent growth of VCaP prostate cancer xenografts in vivo.

Physical and Chemical Properties:

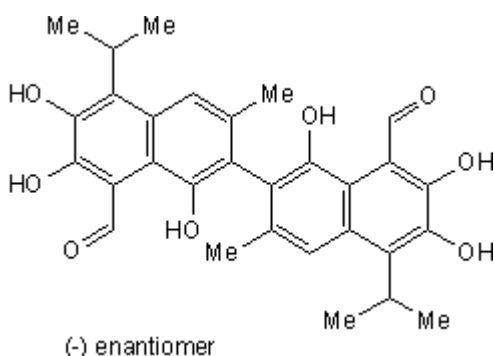
Batch Molecular Formula: C₃₀H₃₀O₈

Batch Molecular Weight: 518.56

Physical Appearance: yellow powder

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Loberg et al (2007) *In vivo* evaluation of AT-101 (R-(-)-gossypol acetic acid) in androgen-independent growth of VCaP prostate cancer cells in combination with surgical castration. *Neoplasia* **9** 1030. PMID: 18084610.

Kline et al (2008) R-(-)-gossypol (AT-101) activates programmed cell death in multiple myeloma cells. *Exp.Hematol.* **36** 568. PMID: 18346839.

Balakrishnan et al (2009) AT-101 induces apoptosis in CLL B cells and overcomes stromal cell-mediated Mcl-1 induction and drug resistance. *Blood* **113** 149. PMID: 18836097.

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