TOCRIS
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Print Date: Jan 15th 2016

Certificate of Analysis

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Product Name: **(-)-Terreic acid** **Catalog No.: 1405** **Batch No.: 1**

CAS Number: 121-40-4

IUPAC Name: (1*R*,6*S*)-3-Hydroxy-4-methyl-7-oxabicyclo[4.1.0]hept-3-ene-2,5-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_7H_6O_4$

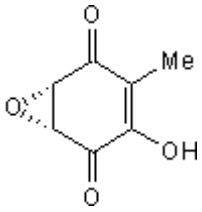
Batch Molecular Weight: 154.12

Physical Appearance: Light yellow crystalline solid

Solubility: water to 20 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.51 (Ethyl acetate:Petroleum ether [1:1])

Melting Point: At 127°C

HPLC: Shows >99% purity

^{1}H NMR: Consistent with structure

^{13}C NMR: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -27.2 (Concentration = 1.8, Solvent = Chloroform)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.55	3.92	
Found	54.57	3.92	

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Description:

Selective inhibitor of Bruton's tyrosine kinase (BTK). Inhibits the interaction between PKCbII and BTK (IC_{50} ~ 30 mM) and the catalytic activity of BTK but does not affect the activity of PKC. Has little effect on the activities of Lyn, Syk, PKA, casein kinase I, ERK1, ERK2 and p38 kinases.

Physical and Chemical Properties:

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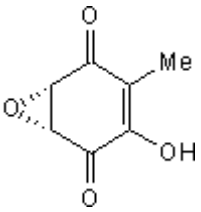
Batch Molecular Weight: 154.12

Physical Appearance: Light yellow crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 20 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:

Yamamoto *et al* (1980) Studies on terreic acid. Jpn.J.Antibiot. ***33*** 320. PMID: 7190624.

Subramanian *et al* (1982) In vivo and in vitro studies on the binding nature of terreic acid with macromolecules such as protein and nucleic acids. Toxicol.Lett. ***10*** 249. PMID: 7080093.

Kawakami *et al* (1999) Terreic acid, a quinone epoxide inhibitor of Bruton's tyrosine kinase. Proc.Natl.Acad.Sci.U.S.A. ***96*** 2227. PMID: 10051623.