

Product Name: (±)-Blebbistatin

Catalog No.: 1760

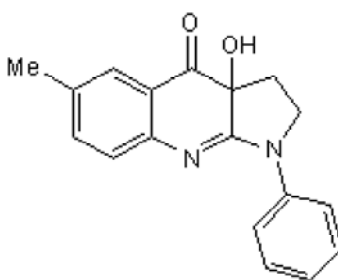
Batch No.: 11

CAS Number: 674289-55-5

IUPAC Name: (±)-1,2,3,3a-Tetrahydro-3a-hydroxy-6-methyl-1-phenyl-4*H*-pyrrolo[2,3-*b*]quinolin-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₆N₂O₂
Batch Molecular Weight: 292.34
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	73.95	5.52	9.58
Found	73.92	5.58	9.68

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

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Description:

(±)-Blebbistatin is a selective inhibitor of myosin II ATPase activity; inhibits contraction of the cleavage furrow without disrupting mitosis or contractile ring assembly. (±)-Blebbistatin rapidly and reversibly blocks cell blebbing, and disrupts directed cell migration and cytokinesis in vertebrate cells. (±)-Blebbistatin inhibits arterial thrombosis development, reduces infiltration of inflammatory cells, and reduces damage to vascular tissue in vivo in a mice model of arterial thrombosis. Active and Inactive Enantiomer also available.

Physical and Chemical Properties:

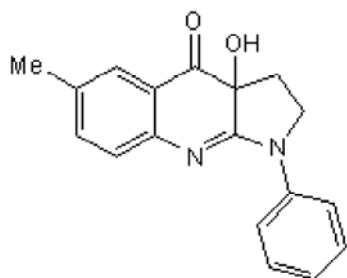
Batch Molecular Formula: C₁₈H₁₆N₂O₂

Batch Molecular Weight: 292.34

Physical Appearance: Yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Gao et al (2020) Blebbistatin inhibits neomycin-induced apoptosis in hair cell-like HEI-OC-1 cells and in cochlear hair cells. *Front.Cell Neurosci.* **13** 590. PMID: 32116554.

Zhang et al (2020) An inhibitor of myosin II, blebbistatin, suppresses development of arterial thrombosis. *Biomed.Pharmacother* **122** 109775. PMID: 31918291.

Chen et al (2018) Blebbistatin modulates prostatic cell growth and contrapctility through myosin II signaling. *Clin.Sci.* **132** 2189. PMID: 30279228.

Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO 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.

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