

Product Name: *para*-Nitroblebbistatin

Catalog No.: 8804

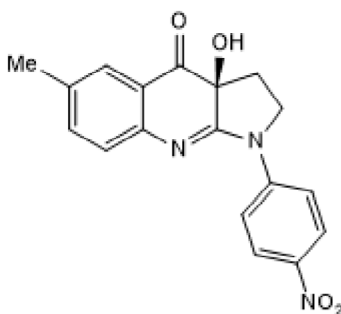
Batch No.: 1

CAS Number: 1621326-32-6

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₅N₃O₄.
Batch Molecular Weight: 337.34
Physical Appearance: Dark orange solid
Solubility: DMSO to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
Chiral HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.09	4.48	12.46
Found	63.99	4.53	12.34

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

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Description:

para-Nitroblebbistatin is a selective inhibitor of Myosin II ATPase activity ($IC_{50} = 15 \mu M$). It is a non-fluorescent, photostable, non-cytotoxic and non-phototoxic derivative of (\pm)-Blebbistatin (Cat. No. 1760). (*S*)-(-)-Blebbistatin (Cat. No. 1852) also available.

Physical and Chemical Properties:

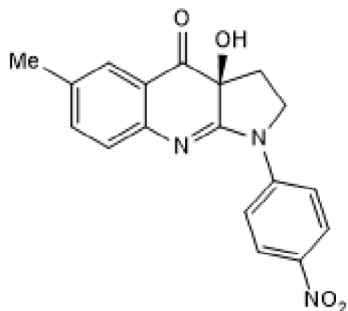
Batch Molecular Formula: $C_{18}H_{15}N_3O_4$.

Batch Molecular Weight: 337.34

Physical Appearance: Dark orange solid

Minimum Purity: $\geq 98\%$

Batch Molecular Structure:



Storage: Store at $-20^{\circ}C$

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 50 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 $45-60^{\circ}C$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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 $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Gollapudi *et al* (2021) Two classes of myosin inhibitors, *para*-nitroblebbistatin and mavacamten, stabilize β -cardiac myosin in different structural and functional states. *J.Mol.Biol.* **433** 167295. PMID: 34627791.

Värkuti *et al* (2016) A highly soluble, non-phototoxic, non-fluorescent blebbistatin derivative. *Sci.Rep.* **31** 26141 . PMID: 27241904.

Képiró *et al* (2011) *para*-Nitroblebbistatin, the non-cytotoxic and photostable myosin II inhibitor *Angew.Chem Int.Ed.Engl.* **53** 8211. PMID: 24954740.

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