

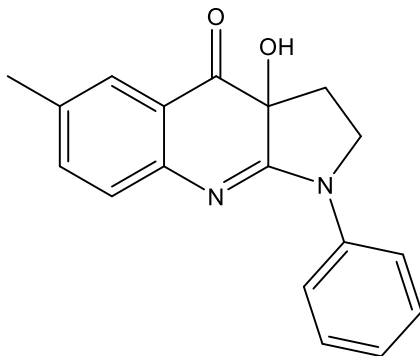
**Catalog #10-2832**

**Blebbistatin**

CAS# 674289-55-5

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

Lot # E103222



Blebbistatin is a potent, selective, reversible, cell-permeable inhibitor of non-muscle myosin II ( $IC_{50} \sim 4 \mu M$ ).<sup>1,2</sup> During cell division it inhibits contraction of the cleavage furrow without disrupting mitosis.<sup>1</sup> Blocks cell blebbing (hence its name) and rapidly disrupts directed cell migration and cytokinesis in many cell types.<sup>1</sup> It promotes neurite outgrowth<sup>3</sup> and is neuroprotective against vincristine-induced neurotoxicity in iPSC-derived neurons<sup>4</sup>.

- 1) Straight *et al.* (2003), *Dissecting temporal and spatial control of cytokinesis with a myosin II inhibitor*; Science **299** 1743
- 2) Kovacs *et al.* (2004), *Mechanism of blebbistatin inhibition of myosin II*; J. Biol. Chem. **279** 35557
- 3) Yu *et al.* (2012), *Myosin II activity regulates neurite outgrowth and guidance in response to chondroitin sulfate proteoglycans*; J. Neurochem. **120** 1117
- 4) Petrova *et al.* (2024), *Identification of novel neuroprotectants against vincristine-induced neurotoxicity in iPSC-derived neurons*; Cell Mol. Life Sci. **81** 315

**PHYSICAL DATA**

Molecular Weight:	292.34
Molecular Formula:	C <sub>18</sub> H <sub>16</sub> N <sub>2</sub> O <sub>2</sub>
Purity:	>98% (TLC)
	NMR: (Conforms)
Solubility:	DMSO (45 mg/mL)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**

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