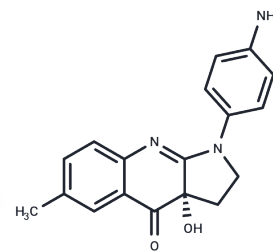


## para-amino-Blebbistatin

## Chemical Properties

CAS No. :	2097734-03-5
Formula:	C <sub>18</sub> H <sub>17</sub> N <sub>3</sub> O <sub>2</sub>
Molecular Weight:	307.353
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	para-amino-Blebbistatin is a more water-soluble form of (S)-4'-nitro-blebbistatin, which is a more stable and less phototoxic form of (-)-blebbistatin. 1,2,3 (-)-Blebbistatin is a selective cell-permeable inhibitor of non-muscle myosin II ATPases that rapidly and reversibly inhibits Mg-ATPase activity and in vitro motility of non-muscle myosin IIA and IIB for several species (IC <sub>50</sub> s = 0.5-5 μM), while poorly inhibiting smooth muscle myosin (IC <sub>50</sub> = 80 μM). 2,3,4 Through these effects, it blocks apoptosis-related bleb formation, directed cell migration, and cytokinesis in vertebrate cells. However, prolonged exposure to blue light (450-490 nm) results in degradation of blebbistatin to an inactive product via cytotoxic intermediates, which may be problematic for its use in fluorescent live cell imaging applications. 5,6 The addition of a 4'-amino group increases its water solubility, decreases the inherent fluorescence, stabilizes the molecule to circumvent its degradation by prolonged blue light exposure, and decreases its phototoxicity while retaining the in vitro and in vivo activity of blebbistatin. 7 para-amino-Blebbistatin has the same stereochemistry as the active (-)-blebbistatin enantiomer.
Targets(IC <sub>50</sub> )	Others, Myosin

## Solubility Information

Solubility	DMF:PBS (pH 7.2) (1:1): 0.5 mg/mL (1.63 mM), Sonication is recommended. DMF: 20 mg/mL (65.07 mM), Sonication is recommended. DMSO: 12.5 mg/mL (40.67 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.2536 mL	16.2681 mL	32.5362 mL
5 mM	0.6507 mL	3.2536 mL	6.5072 mL
10 mM	0.3254 mL	1.6268 mL	3.2536 mL
50 mM	0.0651 mL	0.3254 mL	0.6507 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

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