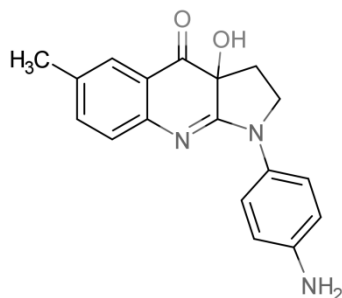


## Certificate

Name of chemical: para-aminoblebbistatin

(S)-1-(4-Amino-phenyl)-3a-hydroxy-6-methyl-1,2,3,3a-tetrahydro-pyrrolo[2,3-b]quinolin-4-one

Cat. No: DR-Am-89



M.w: 307

Extinction coeff at 427 nm: 6860 M<sup>-1</sup>cm<sup>-1</sup> (pH 7.3)

Chemical purity: >95%      Ratio of (-) enantiomer: >90%

Storage conditions: in powder form or dissolved in DMSO in aliquots at -20 °C to limit freezing-thawing cycles.

Reference: **A highly soluble, non-phototoxic, non-fluorescent blebbistatin derivative** by Boglárka H. Várkuti , Miklós Képiró, Ádam I. Horváth, László Végner, Szilvia Ráti, Áron Zsigmond, György Hegyi, Zsolt Lenkei, Máté Varga, András Málnási-Csizmadia in *Scientific Reports*. 2016 May 31;6:26141. doi: 10.1038/srep26141.

This compound is patented by  
ESPCI ParisTech and Printnet Ltd.



## Recommendations for usage

1. Solubility: The equilibrium concentration of para-aminoblebbistatin is 300-420 uM in water based buffers containing 0.1%-1% DMSO. For the concentration of DMSO stocks, we recommend 50 mM.
2. Photostability: unlike blebbistatin, para-aminoblebbistatin is **not phototoxic** when irradiated with >440 nm wavelength light.
3. Myosin inhibition:

myosin type	inhibitory properties
Rabbit skeletal muscle myosin S1 basal ATPase activity	100% inhibition IC50: ~1.3 μM
Rabbit skeletal muscle myosin S1 actin activated ATPase activity	100% inhibition IC50: ~0.47 μM
<i>Dictyostelium discoideum</i> myosin II motor domain actin activated ATPase activity	80% inhibition IC50 ~6.6 μM
<i>Dictyostelium discoideum</i> myosin II motor domain basal ATPase activity	90 % inhibition IC50: ~6.7 μM
Human, slow-twitch muscle fiber (beta myosin) (data kindly provided by <a href="#">Alfredo López</a> )	>95% inhibition IC50: ~11 μM
pig left ventricle, isolated cardiac myosin ATPase activity (unpublished data)	>92% inhibition IC50: 5.2 μM

4. Cytotoxicity: Unlike blebbistatin, para-aminoblebbistatin is not cytotoxic in the dark.
5. Alternative: if para-aminoblebbistatin inhibitory properties are not ideal for your setup, para-nitroblebbistatin may be a useful alternative. (Reference: **Para-nitroblebbistatin, the non-cytotoxic and photostable myosin II inhibitor** by Miklós Képiró, Boglárka H. Várkuti, László Végner, Gergely Vörös, György Hegyi, Máté Varga, András Málnási-Csizmadia in *Angew Chem Int Ed Engl*. 2014 Jul 28;53(31):8211-5. doi:10.1002/anie.201403540)