

## Product Data Sheet

Product Name: ATC12  
Cat. No.: GC79044

### Chemical Properties

Cas. No. 384860-40-6

Formula  $C_{28}H_{29}NO_3$

M.Wt 427.53

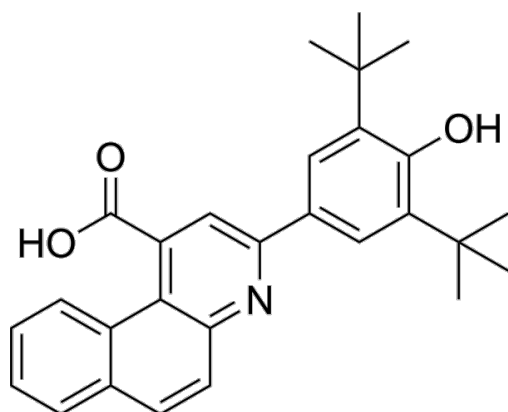
Solubility

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



### Background

ATC12 is a Aurora-A kinase inhibitor. ATC12 binds to Aurora-A and competes with TPX2 for binding to disrupt the Aurora-A / TPX2 interaction. ATC12 inhibits cancer cell proliferation, induces apoptosis and cellular senescence. ATC12 can be used in the research of breast cancer [1].

In Vitro, ATC12 (1.56-100  $\mu$ M; 10 min) disrupts the interaction between purified Aurora-AKDCM and the TPX21-43 peptide in vitro, with an IC<sub>50</sub> of 25.6  $\mu$ M [1]. ATC12 (10  $\mu$ M; 24 h) reduces the formation of the Aurora-A/TPX2 complex on the mitotic spindle and the level of pT288 Aurora-A at

**Caution: Product has not been fully validated for medical applications. For research use only.**

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spindle poles in U2OS osteosarcoma cells<sup>[1]</sup>. ATC12 (10  $\mu$ M; 24 h) disrupts the formation of Aurora-A/TPX2 complexes in mitotic and interphase nuclei of MCF7 and MDA-MB-231 breast cancer cells, and reduces the nuclear level of Aurora-A<sup>[1]</sup>. ATC12 (30-50  $\mu$ M; 0-48 h) inhibits the proliferation of MCF7 breast cancer cells, prolongs the mitotic process, reduces the cell growth rate, and induces apoptotic cell death<sup>[1]</sup>. ATC12 (30-50  $\mu$ M; 0-72 h) inhibits the proliferation of MDA-MB-231 breast cancer cells, prolongs mitotic duration, reduces cell growth rate and induces cellular senescence without triggering cell death<sup>[1]</sup>. ATC12 (10-100  $\mu$ M; 5 days) reduces the viability of patient-derived organoids BCO-21, BCO-46 and BCO-61 from triple-negative breast cancer (TNBC) in a dose-dependent manner<sup>[1]</sup>.

### References:

[1]. Boi D, et al. The ATC12 small molecule inhibits the Aurora-A/TPX2 interaction and impairs the proliferation of breast cancer cells. *Cell Death Dis.* 2026;17(1):356. Published 2026 Mar 24.

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