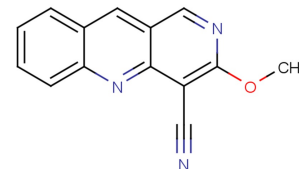


CCB02

## Chemical Properties

CAS No.:	2100864-57-9
Formula:	C <sub>14</sub> H <sub>9</sub> N <sub>3</sub> O
Molecular Weight:	235.24
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	CCB02 is a selective CPAP-tubulin interaction inhibitor (IC <sub>50</sub> : 689 nM) with anti-tumor activity. CCB02 shows no inhibition on the cell cycle- and centrosome-related kinases, or the phosphorylation status of Aurora-A, CDK2, Plk1, Plk2, and CHK1.
Targets(IC <sub>50</sub> )	CPAP-tubulin: 689 nM
In vitro	CCB02 perturbs CPAP PN2-3-tubulin interaction with an IC <sub>50</sub> of 0.441 μM in a PN2-3 CPAP-GST pull-down assay. CCB02 (0.1-15 μM, 72 hours) inhibits the proliferation of cancer cells with extra centrosomes (IC <sub>50</sub> s: 0.86-2.9 μM). CCB02 activates spindle assembly checkpoint, induces PCM proteins recruitment to centrosomes, and enhances microtubule nucleation activities of centrosomes.
In vivo	CCB02 (30 mg/kg, p.o. daily for 24 days) shows potent anti-tumor effect in nude mice bearing subcutaneous human lung (H1975 T790M cells) tumor xenografts. In mouse xenografts, CCB02 also suppresses MDA-MB-231 cell migration and causes multipolar mitosis.

## Solubility Information

Solubility	DMSO: 20 mg/mL (85.02 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.251 mL	21.255 mL	42.51 mL
5 mM	0.85 mL	4.251 mL	8.502 mL
10 mM	0.425 mL	2.125 mL	4.251 mL
50 mM	0.085 mL	0.425 mL	0.85 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

### Reference

1. Mariappan A, et al. Inhibition of CPAP-tubulin interaction prevents proliferation of centrosome-amplified cancer cells. EMBO J. 2019 Jan 15;38(2). pii: e99876.

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Tel:781-999-4286

E-mail:[info@targetmol.com](mailto:info@targetmol.com)

Address:36 Washington Street,Wellesley Hills,MA 02481