

## CCB02

## Chemical Properties

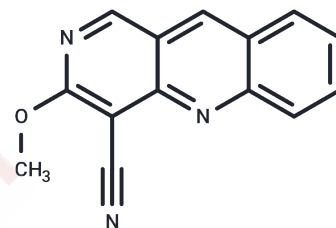
CAS No. : 2100864-57-9

Formula: C<sub>14</sub>H<sub>9</sub>N<sub>3</sub>O

Molecular Weight: 235.24

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	CCB02 is a selective CPAP-tubulin interaction inhibitor (IC <sub>50</sub> : 689 nM) with anti-tumor activity, showing no inhibition on cell cycle- and centrosome-related kinases, nor affecting the phosphorylation status of Aurora-A, CDK2, Plk1, Plk2, and CHK1.
Targets(IC <sub>50</sub> )	Microtubule Associated
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. In concentrations ranging from 0.1 to 15 μM over 72 hours, CCB02 inhibits the proliferation of cancer cells with extra centrosomes (IC <sub>50</sub> s: 0.86-2.9 μM). Additionally, CCB02 activates the spindle assembly checkpoint, induces PCM proteins recruitment to centrosomes, and enhances the microtubule nucleation activities of centrosomes[1].
In vivo	CCB02 (30 mg/kg, p.o. daily for 24 days) exhibits a potent anti-tumor effect in nude mice with subcutaneous human lung (H1975 T790M cells) tumor xenografts, suppresses MDA-MB-231 cell migration, and induces multipolar mitosis in mouse xenografts[1].

## Solubility Information

Solubility	DMSO: 22.5 mg/mL (95.6 mM), Sonication is recommended. (< 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	21.2549 mL	42.5098 mL
5 mM	0.8502 mL	4.251 mL	8.502 mL
10 mM	0.4251 mL	2.1255 mL	4.251 mL
50 mM	0.085 mL	0.4251 mL	0.8502 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.

Reference

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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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