

## Tubulin polymerization-IN-40

## Chemical Properties

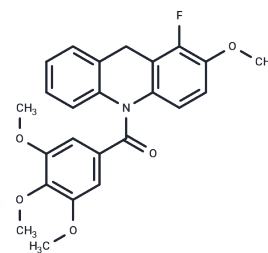
CAS No. : 2921670-94-0

Formula: C<sub>24</sub>H<sub>22</sub>FNO<sub>5</sub>

Molecular Weight:

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	Tubulin Polymerization-IN-40 is an acridane-based inhibitor that potently disrupts tubulin polymerization, exhibiting an IC <sub>50</sub> of 1.5 μM. It halts cancer cell progression at the G <sub>2</sub> /M phase, triggers apoptosis, and possesses anti-cancer properties along with immunopotentiating effects [1].
Targets(IC <sub>50</sub> )	Others
In vitro	Tubulin polymerization-IN-40 (Compound NT-6) exhibited significant antiproliferative efficacy against four cancer cell lines (HCT-116, B16-F10, HeLa, HepG2), with an average IC <sub>50</sub> of 30 nM [1]. At concentrations of 10, 25, and 50 nM administered over 48 hours, it effectively induced apoptosis in B16-F10 cells [1]. Furthermore, Tubulin polymerization-IN-40 caused a G <sub>2</sub> /M phase arrest in B16-F10 cells at the same concentrations after 24 hours [1]. The compound also significantly inhibited colony formation of B16-F10 cells at 50 nM, reducing formation almost completely after 24 hours of treatment [1]. Additionally, Tubulin polymerization-IN-40 dose-dependently inhibited the migration of B16-F10 cells at concentrations of 10, 25, and 50 nM over 24 hours [1].
In vivo	Tubulin polymerization-IN-40 (Compound NT-6; 10 mg/kg; intraperitoneal administration; daily; for 14 days) demonstrated remarkable antitumor efficacy in a melanoma model. When combined with NP-19 (10 mg/kg; intraperitoneal administration), Tubulin polymerization-IN-40 significantly reduced tumor burden (TGI% =77.6%) and enhanced antitumor immune responses [1].

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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