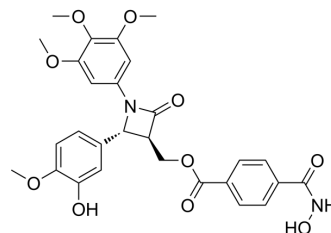


## Tubulin/HDAC-IN-3

Cat. No.:	HY-149578
Molecular Formula:	C <sub>28</sub> H <sub>28</sub> N <sub>2</sub> O <sub>10</sub>
Molecular Weight:	552.53
Target:	Microtubule/Tubulin; HDAC
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Tubulin/HDAC-IN-3 (compound 12a) is a potent tubulin/HDAC dual inhibitor. Tubulin/HDAC-IN-3 effectively disrupts tubulin polymerization (IC <sub>50</sub> : 5.4 μM). Tubulin/HDAC-IN-3 exhibits potent HDAC1/8 inhibitory activities, with IC <sub>50</sub> values of 0.155 and 0.177 μM, respectively. Tubulin/HDAC-IN-3 works through blocking cellular cycle, inducing apoptosis and inhibiting colony formation <sup>[1]</sup> .		
<b>IC<sub>50</sub> &amp; Target</b>	HDAC1 0.155 ± 0. μM (IC <sub>50</sub> )	HDAC8 0.177 ± 0. μM (IC <sub>50</sub> )	HDAC6 1.037 ± 0. μM (IC <sub>50</sub> )
<b>In Vitro</b>	Tubulin/HDAC-IN-3 (compound 12a) shows antiproliferative activity in vitro against four tumor cell lines (BE-(2)-C, A549, U87MG and HCT116), with IC <sub>50</sub> values of 0.017±0.002, 0.053±0.003, 0.056±0.005, and 0.051±0.003 μM, respectively <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
<b>In Vivo</b>	Tubulin/HDAC-IN-3 (compound 12a) (25 mg/kg, intraperitoneally every three days) exhibits significant antitumor efficacy in mice <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

### REFERENCES

[1]. Tang H, et al. Discovery of chiral 1,4-diarylazetid-2-one-based hydroxamic acid derivatives as novel tubulin polymerization inhibitors with histone deacetylase inhibitory activity. *Bioorg Med Chem.* 2023 Sep 7;92:117437.

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

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