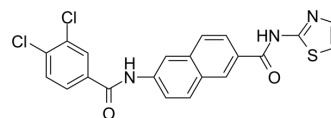


AAPK-25

Cat. No.:	HY-126249
CAS No.:	2247919-28-2
Molecular Formula:	C ₂₁ H ₁₃ Cl ₂ N ₃ O ₂ S
Molecular Weight:	442.32
Target:	Aurora Kinase; Polo-like Kinase (PLK); Apoptosis
Pathway:	Cell Cycle/DNA Damage; Epigenetics; Apoptosis
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (113.04 mM; Need ultrasonic)				
		Mass	1 mg	5 mg	10 mg
		Solvent Concentration			
	Preparing Stock Solutions	1 mM	2.2608 mL	11.3040 mL	22.6081 mL
		5 mM	0.4522 mL	2.2608 mL	4.5216 mL
	10 mM	0.2261 mL	1.1304 mL	2.2608 mL	
Please refer to the solubility information to select the appropriate solvent.					

BIOLOGICAL ACTIVITY

Description	AAPK-25 is a potent and selective Aurora/PLK dual inhibitor with anti-tumor activity, which can cause mitotic delay and arrest cells in a prometaphase, reflecting by the biomarker histone H3 ^{Ser10} phosphorylation and followed by a surge in apoptosis. AAPK-25 targets Aurora-A, -B, and -C with K _d values ranging from 23-289 nM, as well as PLK-1, -2, and -3 with K _d values ranging from 55-456 nM ^[1] .
IC₅₀ & Target	Kd: 23 nM (Aurora-A), 78 nM (Aurora-B), 289 nM (Aurora-C), 55 nM (PLK-1), 272 nM (PLK-2), 456 nM (PLK-3), 5.32 μM (ERK), 7.11 μM (PI3K), 8.02 μM (CDK) ^[1]
In Vitro	AAPK-25 inhibits HCT-116, Calu6, A549 and MCF-7 cells growth with IC ₅₀ s of 0.4, 5.3, 11.6, and 2.3 μM, respectively ^[1] . AAPK-25 induces apoptosis as a dose-dependent manner in HCT-116 cell line ^[1] . AAPK-25 has significantly increased histone H3 ^{Ser10} phosphorylation, indicating a markedly mitotic block ^[1] . AAPK-25 is in notably inhibition of the mitotic spindle checkpoint, which is mainly mediated by cell cycle signaling and mitotic pathways ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AAPK-25 enhances survival rate in the BALB/c nude mice tumor xenograft model ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Qi B, et al. Discovery of inhibitors of Aurora/PLK targets as anti-cancer agents. J Med Chem. 2019 Aug 5.

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

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