

ETP-46464

Chemical Properties

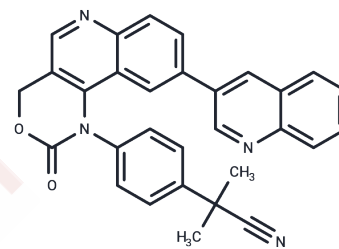
CAS No. : 1345675-02-6

Formula: C₃₀H₂₂N₄O₂

Molecular Weight: 470.52

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	ETP-46464 is an effective and specific ATR inhibitor (IC ₅₀ : 25 nM).
Targets(IC ₅₀)	ATM/ATR,DNA-PK,mTOR,PI3K
In vivo	ETP-46464 (1 μM) exhibits inhibitory effects on the G2/M phase checkpoint induced by ionizing radiation, resulting in cells with micronuclei or completely fragmented nuclei. It significantly enhances the toxicity in p53-deficient cells, particularly under replicative stress conditions like cyclin E overexpression, intensifying the toxicity. At a concentration of 100 nM, ETP-46464 can fully inhibit ATR activity. Furthermore, ETP-46464 inhibits the activity of PI3Kα (IC ₅₀ : 170 nM), mTOR (IC ₅₀ : 0.6 nM), and DNA-PKcs/mTOR (IC ₅₀ : 36 nM) proteins. It promotes damage due to replication fork stalling and induces extensive DNA damage in replicating cells.

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 6 mg/mL (12.75 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1253 mL	10.6265 mL	21.2531 mL
5 mM	0.4251 mL	2.1253 mL	4.2506 mL
10 mM	0.2125 mL	1.0627 mL	2.1253 mL
50 mM	0.0425 mL	0.2125 mL	0.4251 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Toledo LI, et al. Nat Struct Mol Biol, 2011, 18(6), 721-727.

He Q, Zhang Y, Li W, et al. Inhibition of PRMT5 moderately suppresses prostate cancer growth in vivo but enhances its response to immunotherapy. Cancer Letters. 2024: 217214.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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