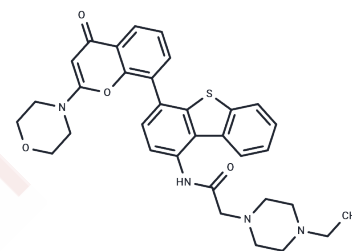


KU-0060648

## Chemical Properties

CAS No. : 881375-00-4  
 Formula: C<sub>33</sub>H<sub>34</sub>N<sub>4</sub>O<sub>4</sub>S  
 Molecular Weight: 582.71  
 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	KU-0060648 is a dual inhibitor of DNA-PK and PI3K $\alpha$ , PI3K $\beta$ , PI3K $\delta$ with IC <sub>50</sub> values of 8.6 nM, 4 nM, 0.5 nM, and 0.1 nM respectively, and demonstrates less inhibition of PI3K $\gamma$ with an IC <sub>50</sub> of 0.59 $\mu$ M.
Targets(IC <sub>50</sub> )	DNA-PK,mTOR,PI3K
In vitro	KU-0060648 exhibits differential effects on growth inhibition, but is not profoundly cytotoxic in a panel of human cancer cell lines. It inhibits DNA-PK and PI-3K with greater potency in MCF7 than SW620 cell using cell-based assays. Five-day exposure to 1 mM KU-0060648 inhibits cell proliferation by more than 95% in MCF7 cells but only by 55% in SW620 cells. In clonogenic survival assays, KU-0060648 increases the cytotoxicity of etoposide and doxorubicin across the panel of DNA-PKcs-proficient cells, but not in DNA-PKcs-deficient cells, confirming that enhanced cytotoxicity of the topoisomerase II poisons etoposide and doxorubicin is due to DNA-PK inhibition. [1]
In vivo	KU-0060648 enhances the anti-tumour activity of etoposide in both MCF7 and SW620 xenograft models, and has single-agent activity in the MCF7 xenograft model. [1]
Cell Research	SRB assay(Only for Reference)

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.7161 mL	8.5806 mL	17.1612 mL
5 mM	0.3432 mL	1.7161 mL	3.4322 mL
10 mM	0.1716 mL	0.8581 mL	1.7161 mL
50 mM	0.0343 mL	0.1716 mL	0.3432 mL

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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

Munck JM, et al. Mol Cancer Ther, 2012, 11(8), 1789-1798.

Celine Cano, et al. Mol Cancer Ther, 2009, 8(12 Suppl), A138.

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