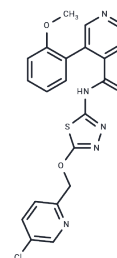


## PolQi2

## Chemical Properties

CAS No. :	2565638-16-4
Formula:	C <sub>21</sub> H <sub>16</sub> ClN <sub>5</sub> O <sub>3</sub> S
Molecular Weight:	453.9
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	PolQi2 is a Polθ inhibitor that suppresses the helicase activity of Polθ. It can be combined with AZD7648 to enhance HDR-mediated integration and editing accuracy.
Targets(IC50)	DNA/RNA Synthesis
In vitro	PolQi2 is a DNA polymerase θ (Pol generative) inhibitor that targets the inhibition of ALT-EJ (alternative end-joining) repair by inhibiting the Pol generative N-terminal helicase domain. The combination of PolQi2 (3 μM, 14 days) and DNA-PK (1 μM, 14 days) inhibitors can efficiently and stably achieve targeted gene insertion in HeLa and Jurkat cells without adversely affecting cell proliferative activity. [1]

## Solubility Information

Solubility	DMSO: 155 mg/mL (341.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (7.27 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.2031 mL	11.0156 mL	22.0313 mL
5 mM	0.4406 mL	2.2031 mL	4.4063 mL
10 mM	0.2203 mL	1.1016 mL	2.2031 mL
50 mM	0.0441 mL	0.2203 mL	0.4406 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

Wimberger S, et al. Simultaneous inhibition of DNA-PK and Pol improves integration efficiency and precision of genome editing. Nat Commun. 2023 Aug 14;14(1):4761.

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