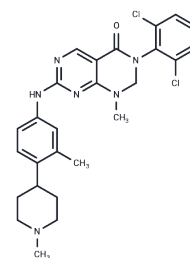


Debio-0123

## Chemical Properties

CAS No. : 2243882-74-6  
 Formula: C<sub>26</sub>H<sub>28</sub>Cl<sub>2</sub>N<sub>6</sub>O  
 Molecular Weight: 511.45  
 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	Debio-0123 (WEE1-IN-5) is a potent, orally available and highly specific WEE1 inhibitor with an IC <sub>50</sub> in the low nanomolar range. Debio-0123 inhibits phospho-CDC2 which translated into an increase in DNA damage and premature entry into mitosis. Debio-0123 increases the antitumoral activity of Carboplatin in vivo whereas neither agent was active alone [1].
Targets(IC <sub>50</sub> )	CDK,Wee1
In vitro	WEE1-IN-5 shows an EC <sub>50</sub> of 188 nM in pCDC2 and an IC <sub>50</sub> shift for CYP3A4/5 [1].
In vivo	WEE1-IN-5, administered as a single dose of 5mg/kg orally (PO) and 1mg/kg intravenously (IV), demonstrates a clearance rate (CL) of 14 mL/min/kg, an area under the curve (AUC) of 1324 h·ng/mL, and a bioavailability of 35% in SD rats [1].

## Solubility Information

Solubility	DMSO: 18 mg/mL (35.19 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.96 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	1.9552 mL	9.7761 mL	19.5523 mL
5 mM	0.391 mL	1.9552 mL	3.9105 mL
10 mM	0.1955 mL	0.9776 mL	1.9552 mL
50 mM	0.0391 mL	0.1955 mL	0.391 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

H. Gelderblom, et al. 601TIP First-in-human phase I study of a novel oral Wee1 inhibitor (Debio 0123) in combination with carboplatin in patients with advanced solid tumours. *Ann Oncol.* 2020 Sep; 31: S501-S502.

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