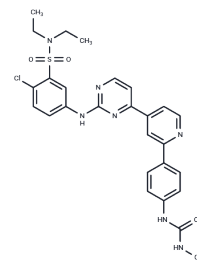


## hSMG-1 inhibitor 11j

## Chemical Properties

CAS No. :	1402452-15-6
Formula:	C <sub>27</sub> H <sub>28</sub> ClN <sub>7</sub> O <sub>3</sub> S
Molecular Weight:	566.07
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	hSMG-1 inhibitor 11j is a pyrimidine derivative. hSMG-1 inhibitor 11j is a potent and selective inhibitor of hSMG-1, IC <sub>50</sub> = 0.11 nM. hSMG-1 inhibitor 11j exhibits >455-fold selectivity for hSMG-1 over mTOR (IC <sub>50</sub> =50 nM), PI3Kα/γ (IC <sub>50</sub> =92/60 nM) and CDK1/CDK2 (IC <sub>50</sub> =32/7.1 μM). hSMG-1 inhibitor 11j can be used for the research of cancer.
Targets(IC <sub>50</sub> )	CDK,GSK-3,mTOR,PI3K
In vitro	hSMG-1 inhibitor 11j (0.3-3 μM; 6 h) significantly reduces UPF1 phosphorylation at 0.3 μM and eliminates it at 1 μM in MDA 361 cells. It also inhibits MDA468 cell proliferation with an IC <sub>50</sub> of 75 nM [1].

## Solubility Information

Solubility	DMSO: 125 mg/mL (220.82 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: 5 mg/mL (8.83 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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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.7666 mL	8.8328 mL	17.6657 mL
5 mM	0.3533 mL	1.7666 mL	3.5331 mL
10 mM	0.1767 mL	0.8833 mL	1.7666 mL
50 mM	0.0353 mL	0.1767 mL	0.3533 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

Gopalsamy A, et, al. Identification of pyrimidine derivatives as hSMG-1 inhibitors. Bioorg Med Chem Lett. 2012 Nov 1;22(21):6636-41.

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