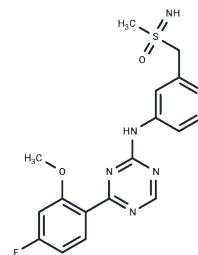


## Atuveciclib S-Enantiomer

## Chemical Properties

CAS No. :	2250279-81-1
Formula:	C <sub>18</sub> H <sub>18</sub> FN <sub>5</sub> O <sub>2</sub> S
Molecular Weight:	387.43
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	Atuveciclib S-Enantiomer (BAY-1143572 S-Enantiomer) is a potent and selective CDK9 inhibitor, inhibiting CDK9/CycT1 with an IC <sub>50</sub> of 16 nM.
Targets(IC <sub>50</sub> )	CDK
In vitro	Atuveciclib (BAY-1143572) S-Enantiomer reveals very similar in vitro properties compared with Atuveciclib (BAY-1143572), well within the limits of measurement accuracy. However, with multiple batches of Atuveciclib (BAY-1143572) S-Enantiomer, there is a trend toward a slightly lower activity against CDK9 in the biochemical assay (IC <sub>50</sub> CDK9/CycT1: 16 nM) and antiproliferative activity against HeLa cells (IC <sub>50</sub> : 1100 nM) [1].
In vivo	Atuveciclib (BAY-1143572) S-Enantiomer shows blood/plasma ratios close to 1, indicating similar distribution. It has comparable pharmacokinetic properties to its parent compound in rats, with a clearance rate (CL <sub>b</sub> ) of 1.2 L/kg per hour, a steady-state volume of distribution (V <sub>ss</sub> ) of 1.2 L/kg, a half-life (t <sub>1/2</sub> ) of 0.6 hours, and a bioavailability (F) of 53% [1].

## Solubility Information

Solubility	DMSO: 113 mg/mL (291.67 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.5811 mL	12.9056 mL	25.8111 mL
5 mM	0.5162 mL	2.5811 mL	5.1622 mL
10 mM	0.2581 mL	1.2906 mL	2.5811 mL
50 mM	0.0516 mL	0.2581 mL	0.5162 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

Lücking U, et al. Identification of Atuveciclib (BAY 1143572), the First Highly Selective, Clinical PTEFb/CDK9 Inhibitor for the Treatment of Cancer. ChemMedChem. 2017 Nov 8;12(21):1776-1793.

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