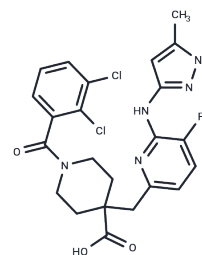


TAS-119

Chemical Properties

CAS No. : 1453099-83-6
 Formula: C₂₃H₂₂Cl₂FN₅O₃
 Molecular Weight: 506.36
 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	TAS-119 (TAS-2104) is an orally available, selective and potent inhibitor of Aurora A with an IC ₅₀ of 1.0 nM. TAS-119 also inhibits Aurora B with an IC ₅₀ of 95 nM. TAS-119 has a higher affinity for Aurora A than for Aurora B. TAS-119 exhibits potent antitumor activity and potential antimetabolic activity. TAS-119 has potent anti-tumor activity and potential anti-mitotic activity.
Targets(IC ₅₀)	Aurora Kinase
In vitro	TAS-119 (30-300 nM) dose-dependently augments the growth inhibition of HeLa cells induced by three taxanes (Paclitaxel, Docetaxel, and Cabazitaxel). It specifically promotes mitotic accumulation in tumor cells over normal diploid fibroblasts. Moreover, TAS-119 amplifies the antiproliferative efficacy of Paclitaxel across a diverse array of human cancer cell lines, even those resistant to Paclitaxel.[1]
In vivo	TAS-119 (5, 10, and 30 mg/kg; oral; twice daily on day 1 and every day on day 2; Nude rats injected with HeLa-luc cells) induced pHH3 at all doses in nude rats with the HeLa-luc xenografts. The treatment induces phosphorylated histone H3 (pHH3) in nude rats with the HeLa-luc xenografts.[1]

Solubility Information

Solubility	DMSO: 45 mg/mL (88.87 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: 2 mg/mL (3.95 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

	1mg	5mg	10mg
1 mM	1.9749 mL	9.8744 mL	19.7488 mL
5 mM	0.395 mL	1.9749 mL	3.9498 mL
10 mM	0.1975 mL	0.9874 mL	1.9749 mL
50 mM	0.0395 mL	0.1975 mL	0.395 mL

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

Sootome H, et al. Aurora A Inhibitor TAS-119 Enhances Antitumor Efficacy of Taxanes In Vitro and In Vivo: Preclinical Studies as Guidance for Clinical Development and Trial Design. Mol Cancer Ther. 2020;19(10):1981-199

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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