

MS645

Chemical Properties

CAS No. : 2250091-96-2

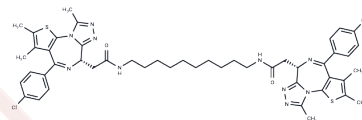
Formula: C₄₈H₅₄Cl₂N₁₀O₂S₂

Molecular Weight: 938.04

Store at low temperature

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	MS645 is an inhibitor of bromodomain-containing protein 4 (BRD4) with a K_i of 18.4 nM for BRD4-BD1/BD2.
Targets(IC ₅₀)	Epigenetic Reader Domain
In vitro	MS645 blocks the proliferation of triple-negative breast cancer (TNBC) cells. MS645 down-regulates proinflammatory cytokines and genes for cell-cycle control and DNA damage repair that are largely unaffected by monovalent BRD inhibition[1].

Solubility Information

Solubility	DMSO: 180 mg/mL (191.89 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 (5.33 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	1.0661 mL	5.3303 mL	10.6605 mL
5 mM	0.2132 mL	1.0661 mL	2.1321 mL
10 mM	0.1066 mL	0.533 mL	1.0661 mL
50 mM	0.0213 mL	0.1066 mL	0.2132 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

Ren C, et al. Spatially constrained tandem bromodomain inhibition bolsters sustained repression of BRD4 transcriptional activity for TNBC cell growth. Proc Natl Acad Sci U S A. 2018 Jul 31;115(31):7949-7954.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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