Product Datasheet

Technical Data

Formula	$C_{27}H_{24}F_3N_5O_2$					
Molecular Weight	507.51	**CAS No.**	1818389-84-2			
Solubility (25°C)*	In vitro	DMSO	25 mg/mL (49.26 mM)			
		Ethanol	13 mg/mL (25.61 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1] → 40%PEG300 [2] → 5%Tween80 [3] → 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	1.250mg/ml (2.46mM)	Taking the 1 mL working solution as an example, add 50 μL of 25 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1] → 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.200mg/ml (0.39mM)	Taking the 1 mL working solution as an example, add 50 μL of 4 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.9704 mL	9.8520 mL	19.7040 mL
5 mM	0.3941 mL	1.9704 mL	3.9408 mL
10 mM	0.1970 mL	0.9852 mL	1.9704 mL
50 mM	-	-	-

Biological Activity

Description	SPHINX31 is a **SRPK1** inhibiror with an IC50 of 5.9 nM with highly selectivity for SRPK1 over SRPK2 (50-fold) and CLK1 (100-fold).
Targets	SRPK1 [1] (Cell-free assay) 5.9 nM
In vitro	Kinase assays showed that SPHINX31 is a type 1 kinase inhibitor (ATP competitive). This compound treatment results in inhibition of SRSF1 phosphorylation at 300 nM in PC3 prostate cancer cells. Metabolic stability in mouse liver microsomes shows that this chemical had medium clearance with a $T_{1/2}$ of 95.79 min[1]. Inhibition of SRPK1 using this inhibitor leads to cell cycle arrest and leukemic cell differentiation[2].
In vivo	SPHINX31 could penetrate into the eye. This compound exerts a dose dependent inhibition of choroidal neovascularisation in mouse model. It inhibits blood vessel growth and macrophage infiltration[1]. This chemical treatment prolongs survival of immunocompromised mice transplanted with MLL-rearranged AML cells[2].

Protocol (from reference)

Cell Assay:[2]

- **Cell lines**
  THP1 cells
- **Concentrations**
  3 μM
- **Incubation Time**
  24 h
- **Method**
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Animal Study:[2]

- **Animal Models**
  DBA2J mice
- **Dosages**
  0.8 mg/kg
- **Administration**

	i.p.

References

https://pubmed.ncbi.nlm.nih.gov/28135068/ https://pubmed.ncbi.nlm.nih.gov/30568163/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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