Product Datasheet

Technical Data

Formula	$C_{16}H_{19}Cl_2N_3O_4S$					
Molecular Weight	420.31	**CAS No.**	2505001-62-5			
Solubility (25°C)*	In vitro	DMSO	84 mg/mL (199.85 mM)			
		Water	Insoluble			
		Ethanol	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.	1.400mg/ml (3.33mM)	Taking the 1 mL working solution as an example, add 50 μL of clarified DMSO stock solution of 28 mg/ml to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify it; 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.	0.350mg/ml (0.83mM)	Taking the 1 mL working solution as an example, add 50 μL of 7 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	2.3792 mL	11.8960 mL	23.7920 mL
5 mM	0.4758 mL	2.3792 mL	4.7584 mL
10 mM	0.2379 mL	1.1896 mL	2.3792 mL
50 mM	0.0476 mL	0.2379 mL	0.4758 mL

Biological Activity

Description	SR18662 is an optimized compund based on ML264 that inhibits **Krüppel-like factor 5 (KLF5)** with IC50 of 4.4 nM. This compound reduces the viability of multiple colorectal cancer cell lines. It induces **apoptosis**.
Targets	KLF5 [1] (Cell-free assay) 4.4 nM
In vitro	Treatment with SR18662 significantly reduces growth and proliferation of CRC cells. This compound shows improved efficacy in reducing viability of multiple CRC cell lines. Flow cytometry analysis following its treatment shows an increase in cells captured in either S or G2/M phases of the cell cycle and a significant increase in the number of apoptotic cells. This chemical treatment also reduces the expression of cyclins and components of MAPK and WNT signaling pathways.[1]
In vivo	A significant dose-dependent inhibition of xenograft growth in mice is observed following SR18662 treatment that exceeds the effect of ML264 at equivalent doses. This compound is potential for colorectal cancer therapy.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  DLD-1, HCT116, HT29 and SW620 colorectal cancer cell lines
- **Concentrations**
  0.001 μM-20 μM
- **Incubation Time**
  24 h
- **Method**
  KLF5 promoter activity assay: DLD-1/pGL4.18hKLF5p cells are seeded in 96 well plate format and treated with DMSO or with SR18662 dissolved in DMSO in the range of 0.001 to 20 μM final concentration for 24 h and the human KLF5 promoter activity is determined with the ONE-Glo luciferase assay system using a SpectramMax M3 plate reader.

Animal Study:[1]

- **Animal Models**
  7-week-old male NuJ/Foxn1^{nu} mice with DLD-1 human colorectal cells injected
- **Dosages**
  5 mg/kg, 10 mg/kg, 25 mg/kg
- **Administration**
  IP

References

https://pubmed.ncbi.nlm.nih.gov/31358661/

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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