SR-18292

Catalog No.C13471 Batch:C1347103

Product Datasheet

Technical Data

Formula	$C_{23}H_{30}N_2O_2$					
Molecular Weight	366.50	**CAS No.**	2095432-55-4			
Solubility (25°C)*	In vitro	DMSO	73 mg/mL (199.18 mM)			
		Ethanol	73 mg/mL (199.18 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.	5.100mg/ml (13.92mM)	Taking the 1 mL working solution as an example, add 50 μL of 102 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.

* <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	2.7285 mL	13.6426 mL	27.2851 mL
5 mM	0.5457 mL	2.7285 mL	5.4570 mL
10 mM	0.2729 mL	1.3643 mL	2.7285 mL
50 mM	0.0546 mL	0.2729 mL	0.5457 mL

Biological Activity

Description	SR-18292 inhibits **PGC-1α gluconeogenic activity** and reduces co-activation of HNF4α by modulating the interaction between GCN5 and PGC-1α.
Targets	PGC-1α [1]
In vitro	SR-18292 is a potent inhibitor of the gluconeogenic gene expression and glucose production in hepatocytes. It increases the interaction of PGC-1α with GCN5 and reduces co-activation of HNF4α by PGC-1α. This compound suppresses HNF4α/PGC-1α gluconeogenic transcriptional function[2].
In vivo	SR-18292 reduces blood glucose, strongly increases hepatic insulin sensitivity and improves glucose homeostasis in dietary and genetic mouse models of type 2 diabetes. This compound suppresses hepatic glucose production and increases liver insulin sensitivity in vivo. The liver is a major target of this chemical and probably accounts for a significant part of its anti-diabetic effects[1].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  U-2 OS cells overexpressing Ad-GCN5
- **Concentrations**
  10 μM
- **Incubation Time**
  18 h
- **Method**
  For determination of GCN5 HAT activity U-2 OS cells overexpressing Ad-GCN5 are treated with SR-18292 (10μM) for 18 h. Cells are lysed with buffer B (20 mM HEPES-KOH (pH 7.9), 125 mM NaCl, 1 mM EDTA, 1 mM DTT, 1% IGEPAL (v/v), 10% glycerol (v/v), 5 mM NaF, 5 mM β-glycerophosphate, 5 mM sodium butyrate and 10 mM nicotinamide), supplemented with Protease Inhibitor Cocktail. FLAG-GCN5 is immunoprecipitated with FLAG beads overnight at 4℃ following multiple washes with lysis buffer. GCN5 is then eluted using 3× FLAG peptide and the purified protein is used to determine HAT activity using the HAT Inhibitor Screening Assay Kit.

Animal Study:[1]

- **Animal Models**
  a high fat diet (HFD) fed mice, a dietary model of obesity and type 2 diabates
- **Dosages**
  45 mg/kg
- **Administration**
  i.p.

References

https://pubmed.ncbi.nlm.nih.gov/28340340/

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.

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