Riociguat

Catalog No.C13208 Batch:C1320803

Product Datasheet

Technical Data

Formula	$C_{20}H_{19}FN_8O_2$					
Molecular Weight	422.42	**CAS No.**	625115-55-1			
Solubility (25°C)*	In vitro	DMSO	84 mg/mL (198.85 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.	4.250mg/ml (10.06mM)	Taking the 1 mL working solution as an example, add 50 μL of 85 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.	0.250mg/ml (0.59mM)	Taking the 1 mL working solution as an example, add 50 μL of 5 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	2.3673 mL	11.8366 mL	23.6731 mL
5 mM	0.4735 mL	2.3673 mL	4.7346 mL
10 mM	0.2367 mL	1.1837 mL	2.3673 mL
50 mM	0.0473 mL	0.2367 mL	0.4735 mL

Biological Activity

Description	Riociguat is an oral soluble **guanylate cyclase (GC)** stimulator, used in the treatment of ipulmonary hypertension.
Targets	guanylate cyclase [1]
In vitro	BAY 63-2521 stimulates the recombinant sGC concentration dependently from 0.1 to 100 μM with a two-fold to 73-fold effect by an NO-independent but haem-dependent mechanism. [1] Riociguat inhibits platelet function in washed platelets but not in whole blood, and exerts no direct effects on contractility and relaxation of cardiac myocytes. [2] [3]
In vivo	In chronic treatment of hypoxic mice and MCT-injected rats, Riociguat (10 mg/kg/d, p.o.) partially reverses the pulmonary arterial hypertension, the right heart hypertrophy and the structural remodelling of the lung vasculature. [1]

Protocol (from reference)

Animal Study: [1]

- **Animal Models**
  Chronic hypoxic mice, and monocrotaline (MCT)-injected rats
- **Dosages**
  10 mg/kg
- **Administration**
  p.o.

References

https://pubmed.ncbi.nlm.nih.gov/18550612/ https://pubmed.ncbi.nlm.nih.gov/26282717/ https://pubmed.ncbi.nlm.nih.gov/26407652/

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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