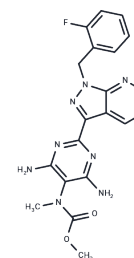


## Riociguat

## Chemical Properties

CAS No. :	625115-55-1
Formula:	C <sub>20</sub> H <sub>19</sub> N <sub>8</sub> O <sub>2</sub>
Molecular Weight:	422.42
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	Riociguat (BAY 632521) is a stimulator of guanylate cyclase which causes relaxation of vascular smooth muscle and is used to treat severe pulmonary arterial hypertension.
Targets(IC50)	Guanylate cyclase
In vitro	BAY 63-2521 (Riociguat) concentration-dependently stimulates the recombinant soluble guanylate cyclase (sGC) from 0.1 to 100 $\mu$ M, resulting in a two-fold to 73-fold increase, through an NO-independent but haem-dependent mechanism. [1] Additionally, Riociguat impairs platelet function in isolated platelets, though it does not affect platelets in whole blood, nor does it directly influence the contractility and relaxation of cardiac myocytes. [2] [3]
In vivo	In a long-term study, Riociguat (10 mg/kg/d, orally) was found to partially mitigate pulmonary arterial hypertension, right heart hypertrophy, and structural remodeling of lung vasculature in hypoxic mice and monocrotaline (MCT)-injected rats. [1]

## Solubility Information

Solubility	DMSO: 40.83 mg/mL (96.66 mM), Sonication is recommended. H <sub>2</sub> O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.73 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

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	1mg	5mg	10mg
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

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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

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