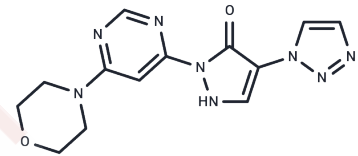


Molidustat

Chemical Properties

CAS No. : 1154028-82-6
 Formula: C₁₃H₁₄N₈O₂
 Molecular Weight: 314.3
 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 | Molidustat (BAY 85-3934)(BAY-85-3934), an inhibitor of hypoxia-inducible factor (HIF) prolyl hydroxylase (PH), stimulates erythropoietin (EPO) production and the formation of red blood cells. |
| Targets(IC50) | HIF/HIF Prolyl-Hydroxylase |
| In vitro | In vitro, Molidustat induces the transcription of hypoxia-sensitive genes in HeLa, A549, and Hep3B cells. [1] |
| In vivo | In healthy Wistar rats and cynomolgus monkeys, Molidustat (1.5 mg/kg, p.o.) induces dose-dependent production of EPO and erythropoiesis. In rats with gentamicin-induced renal anemia, Molidustat (5 mg/kg, p.o.) is also effective in raising hematocrit levels while stimulating endogenous EPO production without hypertensive effects. [1] |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 11 mg/mL (35 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 0.5 mg/mL (1.59 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

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 3.1817 mL | 15.9084 mL | 31.8167 mL |
| 5 mM | 0.6363 mL | 3.1817 mL | 6.3633 mL |
| 10 mM | 0.3182 mL | 1.5908 mL | 3.1817 mL |
| 50 mM | 0.0636 mL | 0.3182 mL | 0.6363 mL |

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

Flamme I, et al. PLoS One. 2014, 9(11):e111838.

Guo W, Liang D, Wang P, et al. HIF-PH Encoded by EGLN1 Is a Potential Therapeutic Target for Chronic Lymphocytic Leukemia. Pharmaceuticals. 2022, 15(6): 734

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