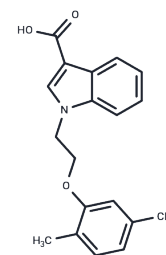


ML-098

Chemical Properties

CAS No. : 878978-76-8
 Formula: C₁₉H₁₉NO₃
 Molecular Weight: 309.36
 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	ML-098 (CID-7345532) is an activator of the GTP-binding protein Rab7 with an EC ₅₀ value of 77.6 nM.
Targets(IC ₅₀)	Ras
In vitro	ML098 (CID-7345532) functions by increasing the affinity of the GTPases for guanine nucleotides, leading to the hypothesis that these activators interact with GTPases bind to an allosteric binding site localized between switch regions I and II. ML-098 is an activator of the GTP-binding protein Rab7 with an EC ₅₀ of 77.6 nM which shows selectivity against the related GTPases cdc42, Ras, Rab-2A, and Rac1 (EC ₅₀ s = 588.8, 346.7, 158.5, and 794.3 nM, respectively)[1].

Solubility Information

Solubility	DMSO: 117.5 mg/mL (379.82 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: 2 mg/mL (6.46 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	3.2325 mL	16.1624 mL	32.3248 mL
5 mM	0.6465 mL	3.2325 mL	6.465 mL
10 mM	0.3232 mL	1.6162 mL	3.2325 mL
50 mM	0.0646 mL	0.3232 mL	0.6465 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

Surviladze, Z., Ursu, O., Miscisocia, F., et al. UNMCMD Probe Report: Three small molecule pan activator families of Ras-related GTPases 1-42 (2009).

Cao Z, Li P, Li Y, et al. Encapsulation of Nano-Bortezomib in Apoptotic Stem Cell-Derived Vesicles for the Treatment of Multiple Myeloma. *Small*.2023: 2301748.

Piper B, Bogamuwa S, Hossain T, et al. RAB7 deficiency impairs pulmonary artery endothelial function and promotes pulmonary hypertension. *bioRxiv*.2023: 2023.02. 03.526842.

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