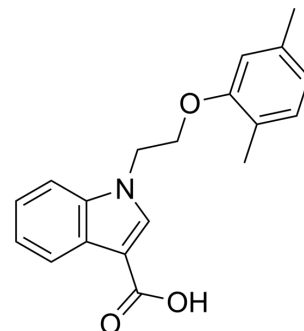


## ML-098

<b>Cat. No.:</b>	HY-19800		
<b>CAS No.:</b>	878978-76-8		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>19</sub> NO <sub>3</sub>		
<b>Molecular Weight:</b>	309.36		
<b>Target:</b>	Ras		
<b>Pathway:</b>	GPCR/G Protein; MAPK/ERK Pathway		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 29 mg/mL (93.74 mM)  
 \* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.2325 mL	16.1624 mL	32.3248 mL
	5 mM	0.6465 mL	3.2325 mL	6.4650 mL
	10 mM	0.3232 mL	1.6162 mL	3.2325 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (8.08 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

ML-098 (CID-7345532) is an activator of the GTP-binding protein Rab7 with an EC<sub>50</sub> of 77.6 nM.

#### IC<sub>50</sub> & Target

EC<sub>50</sub>: 77.6 nM (Rab7)<sup>[1]</sup>

#### In Vitro

Probe compound 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<sub>50</sub> of 77.6 nM which shows selectivity against the related GTPases cdc42, Ras, Rab-2A, and Rac1 (EC<sub>50</sub>s = 588.8, 346.7, 158.5, and 794.3 nM, respectively)<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Autophagy. 2021 Jul 7;1-18.
- Cell Death Discov. 2023 Nov 28;9(1):427.
- Biomater Sci. 2022 Dec 13.
- Front Oncol. 2021 Apr 16;11:659676.
- Vet Microbiol. 2023 Jun 1, 109794.

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## REFERENCES

[1]. Zurab Surviladze, et al. Three small molecule pan activator families of Ras-related GTPases. National Center for Biotechnology Information (US); 2010-.2009 May 18.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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