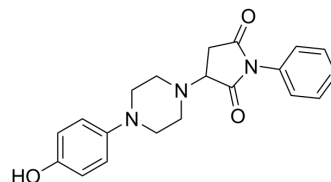


## Malic enzyme inhibitor ME1

Cat. No.:	HY-124861		
CAS No.:	522649-59-8		
Molecular Formula:	C <sub>20</sub> H <sub>21</sub> N <sub>3</sub> O <sub>3</sub>		
Molecular Weight:	351.4		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (284.58 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8458 mL	14.2288 mL	28.4576 mL
		5 mM	0.5692 mL	2.8458 mL	5.6915 mL
10 mM		0.2846 mL	1.4229 mL	2.8458 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (5.92 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.92 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (5.92 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

Description	Malic enzyme inhibitor ME1 (ME1; compound 1) is a potent inhibitor of Malic enzyme (ME1) with an IC <sub>50</sub> of 0.15 μM <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	IC <sub>50</sub> : 0.15 μM (Malic enzyme) <sup>[1]</sup>
In Vitro	<p>Malic enzyme inhibitor ME1 (ME1; ME1*) (50 μM; 72 hours) shows a significant reduction in total cell numbers<sup>[2]</sup>.</p> <p>Malic enzyme inhibitor ME1 shows a significant reduction in cell viability/metabolic activity in MTS cell<sup>[2]</sup>.</p> <p>Malic enzyme inhibitor ME1 dose-dependently reduces the number of colonies formed by both HCT116 and HT29 cells<sup>[2]</sup>.</p>

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Cell Viability Assay<sup>[2]</sup>

Cell Line:	HCT116 and HT29 cell line
Concentration:	50 $\mu$ M
Incubation Time:	72 hours
Result:	Showed a significant reduction in total cell numbers.

## CUSTOMER VALIDATION

- Cell Rep. 2022 Dec 13;41(11):111827.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Zhang YJ, et al. In silico design and synthesis of piperazine-1-pyrrolidine-2,5-dione scaffold-based novel malic enzyme inhibitors. *Bioorg Med Chem Lett.* 2006 Feb;16(3):525-8. Epub 2005 Nov 8.

[2]. Fernandes L, et al. Malic Enzyme 1 (ME1) is pro-oncogenic in ApcMin/+ mice. *Sci Rep.* 2018 Sep 24;8(1):14268.

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

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