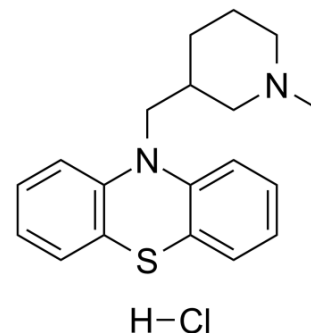


## Mepazine hydrochloride

<b>Cat. No.:</b>	HY-121282A		
<b>CAS No.:</b>	2975-36-2		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>23</sub> ClN <sub>2</sub> S		
<b>Molecular Weight:</b>	346.92		
<b>Target:</b>	MALT1; Apoptosis		
<b>Pathway:</b>	Metabolic Enzyme/Protease; NF-κB; Apoptosis		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 50 mg/mL (144.13 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
<b>Preparing Stock Solutions</b>	<b>1 mM</b>	2.8825 mL	14.4125 mL	28.8251 mL
	<b>5 mM</b>	0.5765 mL	2.8825 mL	5.7650 mL
	<b>10 mM</b>	0.2883 mL	1.4413 mL	2.8825 mL
Please refer to the solubility information to select the appropriate solvent.				
<b>In Vivo</b>	<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: ≥ 2.5 mg/mL (7.21 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.21 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (7.21 mM); Clear solution</li> </ol>			

### BIOLOGICAL ACTIVITY

<b>Description</b>	Mepazine hydrochloride (Pecazine hydrochloride) is a potent and selective MALT1 protease inhibitor with IC <sub>50</sub> s of 0.83 and 0.42 μM for GSTMALT1 full length and GSTMALT1 325-760, respectively. Mepazine hydrochloride affects viability of ABC-DLBCL cells by enhancing apoptosis <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	MALT1 <sup>[1]</sup>
<b>In Vitro</b>	Mepazine (5-20 μM; 4 days) causes a decrease of cell viability in the activated B cell subtype of diffuse large B cell lymphoma

(ABCDLBCL) cells, without significantly affecting GCB-DLBCL cells<sup>[1]</sup>.

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

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	ABC-DLBCL cell lines (HBL1, OCI-Ly3, U2932, TMD8, OCI-Ly10) and GCB-DLBCL cell lines (BJAB, Su-DHL-6, Su-DHL-4)
Concentration:	5, 10, and 20 $\mu$ M
Incubation Time:	4 days
Result:	Caused a decrease of cell viability in the ABC-DLBCL cells HBL1, OCI-Ly3, U2932, and TMD8, without significantly affecting GCB-DLBCL cells.

#### In Vivo

Mepazine (16 mg/kg; intraperitoneal administration) interferes with growth and induces apoptosis of ABC-DLBCL cell line OCI-Ly10 in NOD/scid IL-2Rg<sup>null</sup> (NSG) mice with a murine DLBCL xenogeneic tumor model. Daily administration of Mepazine strongly impairs the expansion of the ABC-DLBCL cell line OCI-Ly10<sup>[1]</sup>.

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

Animal Model:	6- to 8-week-old female NOD.Cg-Prkdc <sup>scid</sup> Il2rg <sup>tm1Wjl</sup> /SzJ (NSG) mice with a murine DLBCL xenogeneic tumor model <sup>[1]</sup>
Dosage:	400 $\mu$ g per animal (25 g), corresponding to approximately 16 mg/kg
Administration:	Intraperitoneal administration; started 1 or 12 days after transplantation and given continuously every 24 hr; daily application
Result:	Daily administration strongly impaired the expansion of the ABC-DLBCL cell line OCI-Ly10.

## REFERENCES

[1]. Nagel D, et al. Pharmacologic inhibition of MALT1 protease by phenothiazines as a therapeutic approach for the treatment of aggressive ABC-DLBCL. *Cancer Cell*. 2012 Dec 11;22(6):825-37.

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

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