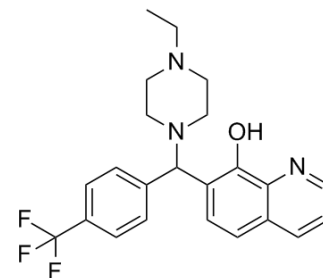


## ML311

Cat. No.:	HY-101778		
CAS No.:	315698-17-0		
Molecular Formula:	C <sub>23</sub> H <sub>24</sub> F <sub>3</sub> N <sub>3</sub> O		
Molecular Weight:	415.45		
Target:	Bcl-2 Family		
Pathway:	Apoptosis		
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 : 67.5 mg/mL (162.47 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		2.4070 mL	12.0351 mL	24.0703 mL
		5 mM		0.4814 mL	2.4070 mL	4.8141 mL
		10 mM		0.2407 mL	1.2035 mL	2.4070 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: <b>10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline</b> Solubility: ≥ 2.25 mg/mL (5.42 mM); Clear solution					
	2. Add each solvent one by one: <b>10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)</b> Solubility: ≥ 2.25 mg/mL (5.42 mM); Clear solution					
	3. Add each solvent one by one: <b>10% DMSO &gt;&gt; 90% corn oil</b> Solubility: ≥ 2.25 mg/mL (5.42 mM); Clear solution					

### BIOLOGICAL ACTIVITY

Description	ML311 is a potent and selective inhibitor of the <b>Mcl-1/Bim</b> interaction.	
IC <sub>50</sub> & Target	Mcl-1	Bim
In Vitro	ML311 potently halts viability of several types of Mcl-1 primed cells, including MCL-1-1780 (EC <sub>50</sub> =0.31 μM), DHL-6 (EC <sub>50</sub> =3.3 μM), and NCI-H929 (EC <sub>50</sub> =1.6 μM), with generally high maximal effect (>80%). ML311 also displays activity	

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in a leukemia-derived cell line particularly reliant upon Bcl-2 function (Bcl2-1863, EC<sub>50</sub>=1.1 μM). ML311 has strong growth inhibitory effects in many cell lines, with GI<sub>50</sub><900 nM for nine cell types (RPMI-8226, SR, NCI-H322M, NCI-H60, HCC-2998, KM12, SF-295, U251, PC-3 cell lines), and <2 μM for 14 additional types<sup>[1]</sup>.

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## REFERENCES

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[1]. Bannister T, et al. ML311: A Small Molecule that Potently and Selectively Disrupts the Protein-Protein Interaction of Mcl-1 and Bim: A Probe for Studying Lymphoid Tumorigenesis. Biotechnology Information (US); 2010-2012 Apr 16.

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

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