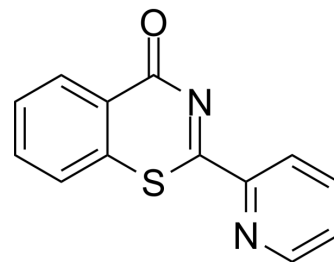


## BTZO-1

Cat. No.:	HY-110084		
CAS No.:	99420-15-2		
Molecular Formula:	C <sub>13</sub> H <sub>8</sub> N <sub>2</sub> OS		
Molecular Weight:	240.28		
Target:	Apoptosis; Macrophage migration inhibitory factor (MIF)		
Pathway:	Apoptosis; Immunology/Inflammation		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 8.33 mg/mL (34.67 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	4.1618 mL	20.8091 mL	41.6181 mL
5 mM	0.8324 mL	4.1618 mL	8.3236 mL
10 mM	0.4162 mL	2.0809 mL	4.1618 mL

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

### BIOLOGICAL ACTIVITY

#### Description

BTZO-1 binds to Macrophage migration inhibitory factor (MIF) with a K<sub>d</sub> value of 68.6 nM, and its binding requires the N-terminal Pro1. BTZO-1 can activate antioxidant response element (ARE)-mediated gene expression and suppress oxidative stress-induced cardiomyocyte apoptosis in vitro<sup>[1]</sup>.

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

K<sub>d</sub>:68.6 nM (Macrophage migration inhibitory factor)<sup>[1]</sup>

#### In Vitro

BTZO-1 (0-330 nM; 24 hours) dose-dependently suppressed serum deprivation-induced cardiomyocyte death; the minimum effective concentration (MEC1.5), the concentration of a sample necessary to give a 50% increase in cell viability, is 16 nM<sup>[1]</sup>. BTZO-1 (0.37 μM; 21 hours) upregulates mRNA protein levels of GST Ya and HO-1 in cardiomyocytes<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: Primary Neonatal Rat Cardiomyocytes

Concentration: 0-330 nM

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Incubation Time:	24 hours
Result:	Suppressed serum deprivation or DOX-induced cell death.

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## REFERENCES

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[1]. Kimura H, et al. BTZO-1, a cardioprotective agent, reveals that macrophage migration inhibitory factor regulates ARE-mediated gene expression. Chem Biol. 2010 Dec 22;17(12):1282-94.

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

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