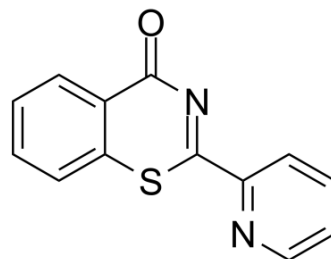


BTZO-1

Cat. No.:	HY-110084		
CAS No.:	99420-15-2		
Molecular Formula:	C ₁₃ H ₈ N ₂ OS		
Molecular Weight:	240.28		
Target:	Apoptosis		
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 : 8.33 mg/mL (34.67 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	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_D 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^[1].

IC₅₀ & Target

Kd:68.6 nM (Macrophage migration inhibitory factor)^[1]

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^[1].

BTZO-1 (0.37 μM; 21 hours) upregulates mRNA protein levels of GST Ya and HO-1 in cardiomyocytes^[1].

Cell Viability Assay^[1]

Cell Line:	Primary Neonatal Rat Cardiomyocytes
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Concentration:	0-330 nM
Incubation Time:	24 hours
Result:	Suppressed serum deprivation or DOX-induced cell death.

REFERENCES

[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.

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

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