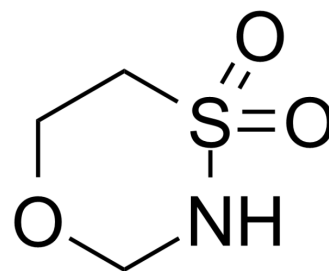


Misetionamide

Cat. No.:	HY-147280		
CAS No.:	856785-75-6		
Molecular Formula:	C ₅ H ₇ NO ₃ S		
Molecular Weight:	137.16		
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 : 100 mg/mL (729.08 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	7.2908 mL	36.4538 mL	72.9076 mL
		5 mM	1.4582 mL	7.2908 mL	14.5815 mL
10 mM		0.7291 mL	3.6454 mL	7.2908 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (18.23 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Misetionamide is an orally oxathiazin-like compound. Misetionamide is a glyceraldehyde-3-phosphate dehydrogenase (GAPDH) inhibitor with antineoplastic activity. Misetionamide can be used for the research of cancer ^[1] .
In Vitro	<p>Misetionamide (OTD) (0-2000 μM; 0-72 h) induces cell death in TNBC cells^[2].</p> <p>Misetionamide (OTD) (0-2000 μM; 12 h) inhibits TNBC cells proliferation^[2].</p> <p>Misetionamide (OTD) (0-1000 μM; 18 h) induces necrosis and apoptosis in TNBC cells^[2].</p> <p>Misetionamide (OTD) (250-1000 μM; 18 h) induces cell death by a ROS-dependent mechanism in TNBC cells^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[2]</p>

Cell Line:	TNBC cells
Concentration:	0, 100, 200, 500, 1000 and 2000 μ M
Incubation Time:	0, 24, 48 and 72 hours
Result:	Induced cell death in TNBC cells dose- and time-dependently.
Cell Proliferation Assay ^[2]	
Cell Line:	TNBC cells
Concentration:	0, 100, 200, 500, 1000 and 2000 μ M
Incubation Time:	12 hours
Result:	Inhibited TNBC cell proliferation dose-dependently.
Cell Viability Assay ^[2]	
Cell Line:	TNBC cells
Concentration:	250, 500, 750, 1000 μ M
Incubation Time:	24 hours
Result:	Induced TNBC cell death mainly dependent on ROS generation.
Apoptosis Analysis ^[2]	
Cell Line:	TNBC cells
Concentration:	0, 100, 250, 750, 1000 μ M
Incubation Time:	18 hours
Result:	Induced necrosis and apoptosis in TNBC cells dose-dependently and induced cell apoptosis is a underlying mechanism to kill TNBC cells.

REFERENCES

[1]. International Nonproprietary Names for Pharmaceutical Substances (INN). WHO Drug Information. 2022. 36(2):337.

[2]. Jinih M, et al. Evaluation of the Cytotoxic Effects of the Novel Antineoplastic Agent 1,4,5-Oxathiazinane-4,4-dioxide on Triple Negative Breast Cancer Cells. Anticancer Res. 2021 May;41(5):2247-2256.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA