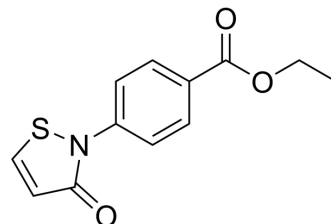


KM04416

Cat. No.:	HY-148685		
CAS No.:	26530-26-7		
Molecular Formula:	C ₁₂ H ₁₁ NO ₃ S		
Molecular Weight:	249.29		
Target:	Others		
Pathway:	Others		
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 : 50 mg/mL (200.57 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.0114 mL	20.0570 mL	40.1139 mL
		5 mM	0.8023 mL	4.0114 mL	8.0228 mL
10 mM		0.4011 mL	2.0057 mL	4.0114 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.03 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	KM04416, an isothiazolone derivative, is a potent glycerol-3-phosphate dehydrogenase (GPD2) inhibitor. KM04416 significantly inhibits PNT1A cell proliferation ^{[1][2]} .	
In Vitro	KM04416 (20 μM; 48 h) has a growth inhibitory effect on several cancer cell lines ^[1] .	
	KM04416 (10 μM; 72 h) significantly inhibits PNT1A cell proliferation ^[1] .	
	MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[1]	
Cell Line:	Several cancer cell lines including MDA-MB-231 and AsPC-1 as well as Huh-7, HepG2, and SK-HEP-1 cells	
Concentration:	20 μM	

Incubation Time:	48 h
Result:	Had a growth inhibitory effect.

Cell Proliferation Assay^[2]

Cell Line:	PNT1A cell
Concentration:	10 μ M
Incubation Time:	72 h
Result:	Significantly inhibited PNT1A cell proliferation.

REFERENCES

[1]. Sehyun Oh, et al. Non-bioenergetic roles of mitochondrial GPD2 promote tumor progression. *Theranostics*. 2023 Jan 1;13(2):438-457.

[2]. Gurmit Singh, et al. Mitochondrial FAD-linked Glycerol-3-phosphate Dehydrogenase: A Target for Cancer Therapeutics. *Pharmaceuticals (Basel)*. 2014 Feb 11;7(2):192-206.

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