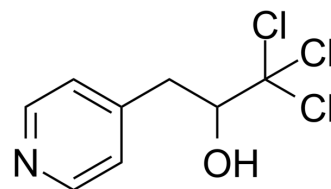


PETCM

Cat. No.:	HY-103349		
CAS No.:	10129-56-3		
Molecular Formula:	C ₈ H ₈ Cl ₃ NO		
Molecular Weight:	240.51		
Target:	Caspase; 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 (415.78 mM; ultrasonic and heat to 40°C)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	1 mM	4.1578 mL	20.7892 mL	41.5783 mL
	5 mM	0.8316 mL	4.1578 mL	8.3157 mL
	10 mM	0.4158 mL	2.0789 mL	4.1578 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 >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (10.39 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (10.39 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (10.39 mM); Clear solution 			

BIOLOGICAL ACTIVITY

Description	PETCM is an activator of caspase-3 and acts as an cytochrome c (cyto c)-dependent manner. PETCM promotes Apaf-1 oligomerization and induces cell apoptosis in HeLa cells ^{[1][2]} .
IC₅₀ & Target	Caspase 3
In Vitro	PETCM (0.1-0.5 mM) stimulates caspase-3 activity (DEVD activity) of HeLa S-100 in a dose-dependent manner. And 0.2 mM PETCM is more efficient in activating caspase-3 than 1 mM dATP ^[1] .

PETCM (0.2 mM; 1 hour) drives apoptosome formation. Apaf-1 in a normal HeLa cell S-100 fraction is in an inactive monomeric form. After 1 mM dATP, most of the Apaf-1 shifted to a size of 1 million daltons. After the S-100 fraction with 0.2 mM PETCM, Apaf-1 exhibits a similar shift. And the efficiency of apoptosome formation was better with 0.2 mM PETCM^[1]. PETCM (0.2 mM; 1 hour) can antagonize the inhibitory activity of ProT reduced caspase-3 activation in in HeLa cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis^[1]

Cell Line:	HeLa cells
Concentration:	0.2 mM
Incubation Time:	1 hour
Result:	Increased apoptosome formation.

REFERENCES

- [1]. ..Jiang X, Kim HE, Shu H, et al. Distinctive roles of PHAP proteins and prothymosin-alpha in a death regulatory pathway. Science, 2003, 299(5604): 223-226.
- [2]. Nguyen JT, et al. Direct activation of the apoptosis machinery as a mechanism to target cancer cells.Proc Natl Acad Sci U S A. 2003 Jun 24;100(13):7533-8.
-

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