Product Data Sheet

Product Name: PETCM
Cat. No.: GC14886

Chemical Properties

Cas. No.	10129-56-3		
Chemical Name	1,1,1-trichloro-3-pyridin-4-ylpropan-2-ol		
SMILES	C1=CN=CC=C1CC(C(Cl)(Cl)Cl)O		
Formula	$C_8H_8Cl_3NO$	M.Wt	240.52
Solubility	<12.03mg/ml in 1eq. HCl	Storage	Store at RT
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	PETCM		

Background

PETCM is an activator of caspase-3 [1].

Caspase-3 is a member of the cysteine-aspartic acid protease family and interacts with caspase-8 and caspase-9. Sequential activation of caspases plays an important role in cell apoptosis.

In HeLa S-100 cell cytosol, PETCM activated caspase-3 in a dose-dependent way and induced apoptosome formation. PETCM (0.2 mM) caused Apaf-1 shifted to a size of ~1 million daltons, which indicating apoptosome formation. Also, PETCM function required dATP. The activation effect of PETCM on caspase-3 was independent of PHAP proteins. When inhibited the activation activity of the PHAP proteins, PETCM reversed the suppression. When added to Q30 (Apaf-1/procaspase-9) plus cytochrome c and 10 μM dATP, recombinant PHAPI activated caspase-3. The activity was inhibited by recombinant ProT. While, PETCM reversed the inhibitory effect of ProT. PHAPI didn’t affect apoptosome formation and activated caspase-9 and Apaf-1, which were associated with

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apoptosome. ProT efficiently blocked formation of apoptosome and PETCM relieved this effect [1].

Reference:

[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.