

Product Name: PETCM

Revision Date: 6/30/2016

# **Product Data Sheet**

## **Chemical Properties**

**Product Name:** PETCM

**Cas No.:** 10129-56-3

M.Wt: 240.52

Formula: C8H8Cl3NO

**Chemical Name:** 1,1,1-trichloro-3-pyridin-4-ylpropan-2-ol

Canonical SMILES: C1=CN=CC=C1CC(C(CI)(CI)CI)O

**Soluble to 50 mM in 1eq. HCl** 

**Storage:** Store at RT

**General tips:** For obtaining a higher solubility, please warm the tube at 37° C

and shake it in the ultrasonic bath for a while. Stock solution can be

stored below -20° C for several months.

**Shopping Condition:** Evaluation sample solution : ship with blue ice

All other available size: ship with RT, or blue ice upon request

### **Biological Activity**

**Targets:** Apoptosis

Pathways: Caspase

**Description:** 

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  $\mu$ M 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 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.

#### **Caution**

#### FOR RESEARCH PURPOSES ONLY.

### NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**ApexBio Technology** 

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com