

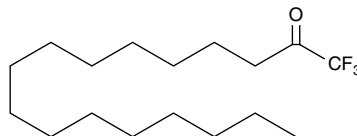
# Product Information



## Palmityl Trifluoromethyl Ketone

Item No. 62650

**CAS Registry No.:** 141022-99-3  
**Formal Name:** 1,1,1-trifluoro-2-heptadecanone  
**Synonyms:** Pentadeca Trifluoromethyl Ketone, PTK  
**MF:**  $C_{17}H_{31}F_3O$   
**FW:** 308.4  
**Purity:**  $\geq 98\%$   
**Stability:**  $\geq 2$  years at  $-20^{\circ}\text{C}$   
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that palmityl trifluoromethyl ketone (PTK) be stored as supplied at  $-20^{\circ}\text{C}$ . It should be stable for at least two years.

PTK is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethylformamide purged with an inert gas can be used. PTK is soluble in these solvents at a concentration of at least 30 mg/ml.

PTK is sparingly soluble in neutral buffers. Therefore, dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Avoid adding PTK to basic solutions ( $\text{pH} > 7.4$ ) as PTK is not stable under basic conditions. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing aqueous solutions of PTK for more than one day.

PTK is an inhibitor of  $\text{Ca}^{2+}$ -independent phospholipase  $A_2$  (iPLA<sub>2</sub>). PTK is an analog of palmitic acid in which the  $\text{COOH}$  group is replaced by trifluoromethyl ketone. In P388D1 cells, PTK inhibits iPLA<sub>2</sub> activity with an  $\text{IC}_{50}$  value of  $3.8 \mu\text{M}$ .<sup>1</sup> A related compound, ATK is a less potent inhibitor of iPLA<sub>2</sub> with an  $\text{IC}_{50}$  value of  $15 \mu\text{M}$ .<sup>1</sup> PTK also inhibits the activity of cPLA<sub>2</sub> with an  $\text{IC}_{50}$  value almost identical to that of ATK.<sup>2</sup>

### References

1. Ackermann, E.J., Conde-Frieboes, K., and Dennis, E.A. Inhibition of macrophage  $\text{Ca}^{2+}$ -independent phospholipase  $A_2$  by bromoenol lactone and trifluoromethyl ketones. *J. Biol. Chem.* **270**, 445-450 (1995).
2. Conde-Frieboes, K., Reynolds, L.J., Lio, Y.-C., *et al.* Activated ketones as inhibitors of intracellular  $\text{Ca}^{2+}$ -dependent and  $\text{Ca}^{2+}$ -independent phospholipase  $A_2$ . *J. Am. Chem. Soc.* **118**, 5519-5525 (1996).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/62650](http://www.caymanchem.com/catalog/62650)

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