

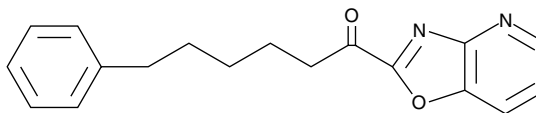
# Product Information



## PHOP

Item No. 71655

**CAS Registry No.:** 288862-83-9  
**Formal Name:** 1-oxazolo[4,5-b]pyridin-2-yl-6-phenyl-1-hexanone  
**Synonyms:** CAY10402, Phenyl hexanoyl oxazolopyridine  
**MF:** C<sub>18</sub>H<sub>18</sub>O<sub>2</sub>N<sub>2</sub>  
**FW:** 294.4  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate  
**UV/Vis.:** λ<sub>max</sub>: 205, 297 nm



### Laboratory Procedures

For long term storage, we suggest that PHOP be stored as supplied at -20°C. It should be stable for at least one year.

PHOP is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of PHOP in ethanol is approximately 10 mg/ml and 30 mg/ml in DMSO and DMF.

PHOP is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of PHOP should be diluted with the aqueous buffer of choice. PHOP has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Fatty acid amide hydrolase (FAAH) is the enzyme responsible for hydrolysis and inactivation of fatty acid amides including anandamide and oleamide. PHOP is a potent FAAH inhibitor, exhibiting K<sub>i</sub> values of 0.094 nM and 0.2 nM for the human and rat enzymes, respectively.<sup>1</sup> Using a proteomics approach, PHOP was screened against the serine hydrolase family of enzymes, of which FAAH is a member. In this assay, PHOP exhibited IC<sub>50</sub> values of 1.1 nM, 1.4 nM, and >100 μM for FAAH, triacylglycerol hydrolase (TGH), and an uncharacterized hydrolase (KIAA1363), respectively.<sup>2</sup> Knowledge of the specificity of PHOP obtained from this experiment should allow for more accurate interpretation of results using this inhibitor in complex environments such as whole cells or animals.

### References

1. Boger, D.L., Sato, H., Lerner, A.E., *et al.* Exceptionally potent inhibitors of fatty acid amide hydrolase: The enzyme responsible for degradation of endogenous oleamide and anandamide. *Proc. Natl. Acad. Sci. USA* **97**, 5044-5049 (2000).
2. Leung, D., Hardouin, C., Boger, D.L., *et al.* Discovering potent and selective reversible inhibitors of enzymes in complex proteomes. *Nature Biotechnology* **21**(6), 687-691 (2003).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/71655](http://www.caymanchem.com/catalog/71655)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

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