

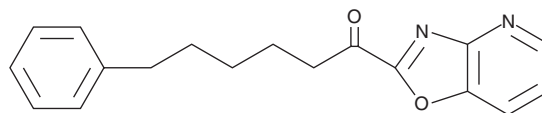
# PRODUCT INFORMATION



## 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  
**UV/Vis.:** λ<sub>max</sub>: 205, 297 nm  
**Purity:** ≥98%  
**Supplied as:** A solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

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.

### Description

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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM