

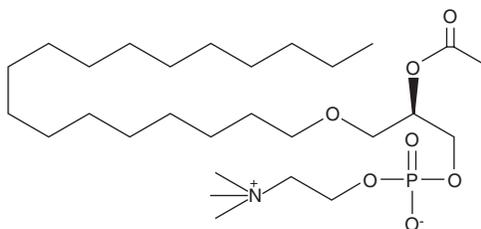
# Product Information



## PAF C-18

Item No. 60910

**CAS Registry No.:** 74389-69-8  
**Formal Name:** 1-O-octadecyl-2-O-acetyl-*sn*-glyceryl-3-phosphorylcholine  
**MF:** C<sub>28</sub>H<sub>58</sub>NO<sub>7</sub>P  
**FW:** 551.7  
**Purity:** ≥97%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that PAF C-18 be stored as supplied at -20°C. It will be stable for at least two years.

PAF C-18 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 and dimethyl formamide purged with an inert gas can be used. The solubility of PAF C-18 in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of PAF C-18 is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of PAF C-18 in PBS (pH 7.2) is approximately 20 mg/ml. We do not recommend storing the aqueous solution for more than one day.

PAF C-18 is a naturally occurring phospholipid produced upon stimulation through two distinct pathways known as the 'remodeling' and 'de novo' pathways.<sup>1</sup> It is less potent than PAF C-16 in the induction of platelet aggregation, but equipotent in activation of guinea pig macrophages.<sup>2</sup> PAF C-18 induces the release of PGE<sub>2</sub> and TXB<sub>2</sub> from albumin-elicited guinea pig macrophages, and enhances the spreading of plated macrophages.<sup>3</sup> Pathological processes involving PAF include necrotizing enterocolitis,<sup>4</sup> inflammation, asthma, and allergy.<sup>5</sup>

### References

1. Prescott, S.M., Zimmerman, G.A., and McIntyre, T.M. Platelet-activating factor. *J. Biol. Chem.* **265**, 17381-17384 (1990).
2. Stewart, A.G. and Grigoriadis, G. Structure-activity relationships for platelet-activating factor (PAF) and analogs reveal differences between PAF receptors on platelets and macrophages. *J. Lipid Mediators* **4**, 299-308 (1991).
3. Hartung, H.-P. Acetyl glyceryl ether phosphorylcholine (platelet-activating factor) mediates heightened metabolic activity in macrophages. Studies on PGE, TXB<sub>2</sub> and O<sub>2</sub> production, spreading, and the influence of calmodulin-inhibitor W-7. *FEBS Lett.* **160**, 209-212 (1983).
4. Wang, H., Tan, X.-D., Qu, X.-W., *et al.* Platelet-activating factor (PAF) up-regulates plasma and tissue PAF-acetylhydrolase activity in the rat: Effect of cycloheximide. *Pediatr. Res.* **42**, 597-603 (1997).
5. Sturk, A., Wouter Ten Cate, J., Hosford, D., *et al.* The synthesis, catabolism, and pathophysiological role of platelet-activating factor. *Adv. Lipid Res.* **23**, 219-276 (1989).

### Related Products

PtdIns-(3,4,5)-P<sub>3</sub>(1,2-dipalmitoyl)(sodium salt) - Item No. 64920 • Lyso-PAF C-18 -d<sub>4</sub> - Item No. 10010228 • PAF C-18 -d<sub>4</sub> - Item No. 10010229

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**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

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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