

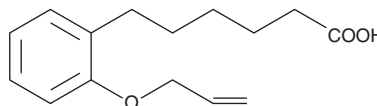
PRODUCT INFORMATION



PPOH

Item No. 75760

CAS Registry No.: 206052-01-9
Formal Name: 2-(2-propynyloxy)-benzenehexanoic acid
MF: C₁₅H₁₈O₃
FW: 246.3
Purity: ≥99%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

PPOH is supplied as a crystalline solid. A stock solution may be made by dissolving the PPOH in the solvent of choice, which should be purged with an inert gas. PPOH is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PPOH in ethanol and DMF is approximately 100 mg/ml and approximately 50 mg/ml in DMSO.

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. Organic solvent-free aqueous solutions of PPOH can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PPOH in PBS (pH 7.2) is approximately 0.5 mg/ml. For maximum solubility in aqueous buffers, PPOH should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. PPOH has a solubility of approximately 0.05 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Arachidonic acid is converted by microsomal CYP450 enzymes to a variety of epoxides, ω-1 and ω-hydroxylated compounds via what is known as the epoxidase pathway.¹⁻³ PPOH is a selective inhibitor of the epoxygenation reactions catalyzed by specific CYP450 isozymes.⁴ PPOH inhibits the formation of arachidonate 11,12 epoxides by CYP4A2 and CYP4A3 enzymes with an IC₅₀ of 9 μM, but has effect on the formation of 20-HETE, the ω-hydroxylation product of CYP4A1.⁵

References

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2. Sacerdoti, D., Abraham, N.G., McGiff, J.C., *et al.* Renal cytochrome P-450-dependent metabolism of arachidonic acid in spontaneously hypertensive rats. *Biochem. Pharmacol.* **37**(3), 521-527 (1988).
3. Fitzpatrick, F.A. and Murphy, R.C. Cytochrome P-450 metabolism of arachidonic acid: Formation and biological actions of 'epoxygenase'-derived eicosanoids. *Pharmacol. Rev.* **40**(4), 229-241 (1989).
4. Imig, J.D., Falck, J.R., and Inscho, E.W. Contribution of cytochrome P450 epoxygenase and hydroxylase pathways to afferent arteriolar autoregulatory responsiveness. *Br. J. Pharmacol.* **127**(6), 1399-1405 (1999).
5. Wang, M.H., Brand-Schieber, E., Zand, B.A., *et al.* Cytochrome P450-derived arachidonic acid metabolism in the rat kidney: Characterization of selective inhibitors. *J. Pharmacol. Exp. Ther.* **284**(3), 966-973 (1998).

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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