

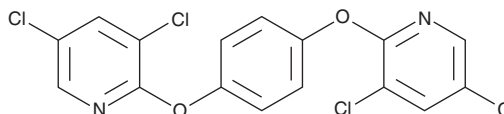
# PRODUCT INFORMATION



## TCPOBOP

Item No. 14140

**CAS Registry No.:** 76150-91-9  
**Formal Name:** 2,2'-[1,4-phenylenebis(oxy)]bis[3,5-dichloro]-pyridine  
**MF:** C<sub>16</sub>H<sub>8</sub>Cl<sub>4</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 402.1  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 235, 290 nm  
**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

TCPOBOP is supplied as a crystalline solid. A stock solution may be made by dissolving the TCPOBOP in the solvent of choice, which should be purged with an inert gas. TCPOBOP is soluble in the organic solvent dimethyl formamide at a concentration of approximately 3 mg/ml.

### Description

The mouse constitutive androstane receptor (mCAR), with the retinoid X receptor, binds to the retinoic acid response element to upregulate the expression of proteins that metabolize xenobiotics.<sup>1</sup> TCPOBOP is an agonist for mCAR (EC<sub>50</sub> = 20 nM) that is effective for the mouse receptor but not for human or rat CAR receptors.<sup>2,3</sup> Through its effects on mCAR, TCPOBOP potently induces cytochrome P450 monooxygenases and multidrug resistance and xenobiotic efflux proteins.<sup>4-6</sup> The action of TCPOBOP on mCAR-mediated gene expression can be repressed by retinoic acids.<sup>7</sup>

### References

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3. Timsit, Y.E. and Negishi, M. CAR and PXR: The xenobiotic-sensing receptors. *Steroids* **72(3)**, 231-246 (2007).
4. Smith, G., Henderson, C.J., Parker, M.G., *et al.* 1,4-Bis[2-(3,5-dichloropyridyloxy)]benzene, an extremely potent modulator of mouse hepatic cytochrome P-450 gene expression. *Biochem. J.* **289(Pt 3)**, 807-813 (1993).
5. Wang, X., Sykes, D.B., and Miller, D.S. Constitutive androstane receptor-mediated up-regulation of ATP-driven xenobiotic efflux transporters at the blood-brain barrier. *Mol. Pharmacol.* **78(3)**, 376-383 (2010).
6. Maher, J.M., Cheng, X., Slitt, A.L., *et al.* Induction of the multidrug resistance-associated protein family of transporters by chemical activators of receptor-mediated pathways in mouse liver. *Drug Metab. Dispos.* **33(7)**, 956-962 (2005).
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#### 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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