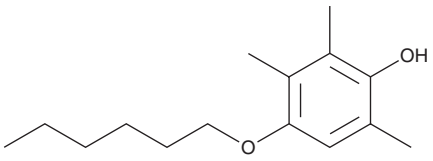
PRODUCT INFORMATION

HX 1171

Item No. 22652

CAS Registry No.: 148081-72-5
Formal Name: 4-(hexyloxy)-2,3,6-trimethyl-phenol
Synonym: HTHQ
MF: $C_{15}H_{24}O_2$
FW: 236.4
Purity: ≥98%
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

HX 1171 is supplied as a crystalline solid. A stock solution may be made by dissolving the HX 1171 in the solvent of choice, which should be purged with an inert gas. HX 1171 is soluble in the organic solvent chloroform.

Description

HX 1171 is a derivative of vitamin E that has lipid peroxidative, antioxidant, and cancer-related activities.[1-3] It inhibits lipid peroxidation by 98 and 40% when used at concentrations of 10 and 1 µM, respectively, in rat liver microsomes.[1] It activates NRF2 by enhancing its nuclear translocation and transcriptional activity, increasing the expression of the antioxidant-related enzymes NQO1 and HMOX1 in A549 human lung epithelial cells.[4] HX 1171 (30 mg/kg) reduces the amount of fibrosis and the level of fibrotic markers in liver and primary hepatocytes, respectively, from rats with carbon tetrachloride-induced liver cirrhosis.[2] It also decreases the incidence of hepatocellular adenomas and hemangiosarcomas in rats treated with the aminopyrine (AP) and sodium nitrite ($NaNO_2$), but increases the incidence of forestomach carcinoma when administered with AP and $NaNO_2$ or $NaNO_2$ alone.[3]

References

1. Nihro, Y., Furukawa, H., Sogawa, S., *et al.* Synthesis and anti lipid-peroxidation activity of hydroquinone monoalkyl ethers. *Chem. Pharm. Bull. (Tokyo)* **42(3)**, 576-579 (1994).
2. An, J., Feng, G.G., Huang, L., *et al.* Effects of 1-O-hexyl-2,3,5-trimethylhydroquinone on carbon tetrachloride-induced hepatic cirrhosis in rats. *Hepatol. Res.* **40(6)**, 613-621 (2010).
3. Yada, H., Hirose, M., Tamano, S., *et al.* Effects of antioxidant 1-O-hexyl-2,3,5-trimethylhydroquinone or ascorbic acid on carcinogenesis induced by administration of aminopyrine and sodium nitrite in a rat multi-organ carcinogenesis model. *Jpn. J. Cancer Res.* **93(12)**, 1299-1307 (2002).
4. Kim, J., Shin, S.H., Ko, Y.E., *et al.* HX-1171, a novel Nrf2 activator, induces NQO1 and HMOX1 expression. *J. Cell Biochem.* **118(10)**, 3372-3380 (2017).

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