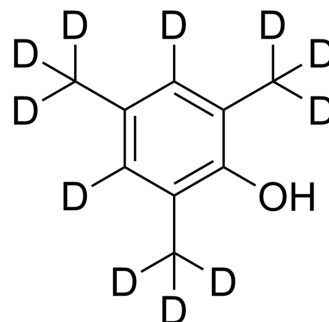


## 2,4,6-Trimethylphenol-d<sub>11</sub>

<b>Cat. No.:</b>	HY-W038786S
<b>CAS No.:</b>	362049-45-4
<b>Molecular Formula:</b>	C <sub>9</sub> HD <sub>11</sub> O
<b>Molecular Weight:</b>	147.26
<b>Target:</b>	Isotope-Labeled Compounds
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	2,4,6-Trimethylphenol-d <sub>11</sub> is the deuterium labeled 2,4,6-Trimethylphenol[1]. 2,4,6-Trimethylphenol is a probe compound shown to react mainly with organic matter (3DOM*). 2,4,6-Trimethylphenol is rapidly oxidized by singlet oxygen in aqueous solution[2][3].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Rosado-Lausell SL, et al. Roles of singlet oxygen and triplet excited state of dissolved organic matter formed by different organic matters in bacteriophage MS2 inactivation. *Water Res*. 2013;47(14):4869-4879.
- [3]. Paul G.Tratnyek, et al. Photo-oxidation of 2,4,6-trimethylphenol in aqueous laboratory solutions and natural waters: kinetics of reaction with singlet oxygen. *Journal of Photochemistry and Photobiology A: Chemistry*. Volume 84, Issue 2, 6 December 1994, Pages 153-160.
- [4]. Libby RD, et al. Defining the involvement of HOCl or Cl<sub>2</sub> as enzyme-generated intermediates in chloroperoxidase-catalyzed reactions. *J Biol Chem*. 1992;267(3):1769-1775.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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