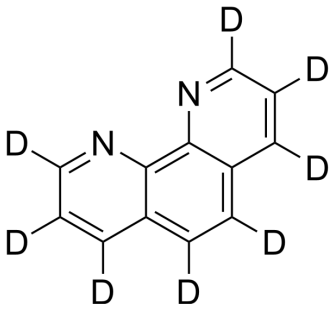
o-Phenanthroline-d_8

Cat. No.:	HY-W004544S
CAS No.:	90412-47-8
Molecular Formula:	$C_{12}D_8N_2$
Molecular Weight:	188.25
Target:	MMP; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	o-Phenanthroline-d_8 is the deuterium labeled o-Phenanthroline. o-Phenanthroline (1,10-Phenanthroline), a metal chelator, prevents the induction of chromosomal aberrations in streptozotocin-treated cells. o-Phenanthroline (1,10-Phenanthroline) forms a red chelate with Fe2+ that absorbs maximally at 510 nm. o-Phenanthroline (1,10-Phenanthroline) is also a MMP inhibitor[1][2].
In Vitro	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[1]. 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;53(2):211-216.

[2]. Zi-Qiang Liu, et al. The role of matrix metalloprotease (MMP) to the autolysis of sea cucumber (Stichopus japonicus). J Sci Food Agric. 2019 Oct;99(13):5752-5759.

[3]. Guan NanMu, et al. Synergistic inhibition between o-phenanthroline and chloride ion on cold rolled steel corrosion in phosphoric acid. Materials Chemistry and Physics Volume 86, Issue 1, 15 July 2004, Pages 59-68.

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