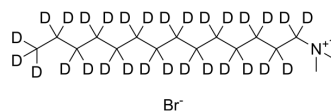


Tetradecyltrimethylammonium-d₂₉ bromide

Cat. No.:	HY-D0839S1
CAS No.:	95523-73-2
Molecular Formula:	C ₁₇ H ₉ D ₂₉ BrN
Molecular Weight:	365.57
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tetradecyltrimethylammonium-d ₂₉ (bromide) is the deuterium labeled Tetradecyltrimethylammonium (bromide)[1]. Tetradecyltrimethylammonium bromide, an organic building block, is a cationic surfactant with asymmetrical structure[2][3].
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 Feb;53(2):211-216.
- [2]. Dopierala K, et al. The effect of molecular structure on the surface properties of selected quaternary ammonium salts. *J Colloid Interface Sci*. 2008;321(1):220-226.
- [3]. N. Gorski, et al. Mixtures of Nonionic and Ionic Surfactants. The Effect of Counterion Binding in Mixtures of Tetradecyldimethylamine Oxide and Tetradecyltrimethylammonium Bromide. *Langmuir* 1994, 10, 8, 2594-2603.
- [4]. Cocke DL, et al. The surface properties of tetradecyltrimethylammonium bromide observed by capillary electrophoresis. *J Chromatogr Sci*. 200240(4):187-190.

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

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