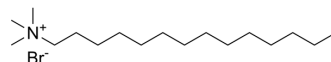


Tetradecyltrimethylammonium bromide

Cat. No.:	HY-D0839
CAS No.:	1119-97-7
Molecular Formula:	C ₁₇ H ₃₈ BrN
Molecular Weight:	336.39
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 125 mg/mL (371.59 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.9727 mL	14.8637 mL	29.7274 mL
		5 mM	0.5945 mL	2.9727 mL	5.9455 mL
	10 mM	0.2973 mL	1.4864 mL	2.9727 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (148.64 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	Tetradecyltrimethylammonium bromide, an organic building block, is a cationic surfactant with asymmetrical structure ^{[1][2]} .
In Vitro	Tetradecyltrimethylammonium bromide (TTAB; TTABr) is increasingly used in capillary electrophoresis as a surface active aid in the separation of acid derived anionic species. It has been observed that Tetradecyltrimethylammonium bromide requires a minimum concentration of approximately 0.4mM for best results. This value has been chosen because it is close to its critical micelle concentration (CMC), and it has been projected that this concentration is required for “hemimicelles” to be formed on the inner wall of the capillary ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [1]. 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.
- [2]. 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.
- [3]. Cocke DL, et al. The surface properties of tetradecyltrimethylammonium bromide observed by capillary electrophoresis. J Chromatogr Sci. 2002;40(4):187-190.
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Caution: Product has not been fully validated for medical applications. For research use only.

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