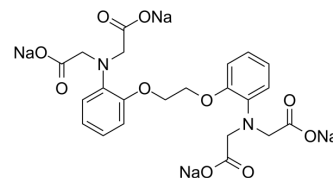


BAPTA tetrasodium

Cat. No.:	HY-100168A
CAS No.:	126824-24-6
Molecular Formula:	C ₂₂ H ₂₀ N ₂ Na ₄ O ₁₀
Molecular Weight:	564.36
Target:	Phospholipase
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro H₂O : 100 mg/mL (177.19 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		1.7719 mL	8.8596 mL	17.7192 mL
	5 mM		0.3544 mL	1.7719 mL	3.5438 mL
	10 mM		0.1772 mL	0.8860 mL	1.7719 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description BAPTA tetrasodium is a selective chelator for calcium. BAPTA tetrasodium, as calcium indicator, has high selectivity against magnesium and calcium. BAPTA tetrasodium is widely used as an intracellular buffer for investigating the effects of Ca²⁺ release from intracellular stores or influx via Ca²⁺-permeable channels in the plasma membrane. BAPTA tetrasodium can also inhibit phospholipase C activity independently of their role as Ca²⁺ chelators^{[1][2][3]}.

In Vitro BAPTA (0.3-30 μM; 1 h) can be used for the prevention of [Ca²⁺]-induced cell damage, but disturbe calcium signalling in isingle differentiated NH15-CA2 neuroblastoma and glioma hybrid cells^[3]. BAPTA (0-10 mM) inhibits phospholipase C (PLC) activity in a dose-dependent manner, and is unrelated to Ca²⁺^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Immunol. 2019 Jun 28;4(36):eaau6426.
- Adv Sci (Weinh). 2021 May 27;e2100363.

- J Thromb Haemost. 2021 Aug 19.
- Sci Total Environ. 2020 Feb 10;703:134702.
- J Ginseng Res. 10 August 2021.

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REFERENCES

- [1]. RY Tsien, et al. New calcium indicators and buffers with high selectivity against magnesium and protons: design, synthesis, and properties of prototype structures. *Biochemistry*. 1980 May 27;19(11):2396-404.
- [2]. Roger C Hardie, et al. Inhibition of phospholipase C activity in *Drosophila* photoreceptors by 1,2-bis(2-aminophenoxy)ethane N,N,N',N'-tetraacetic acid (BAPTA) and di-bromo BAPTA. *Cell Calcium*. 2005 Dec;38(6):547-56.
- [3]. M B Collatz, et al. Intracellular calcium chelator BAPTA protects cells against toxic calcium overload but also alters physiological calcium responses. *Cell Calcium*
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Caution: Product has not been fully validated for medical applications. For research use only.

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