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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
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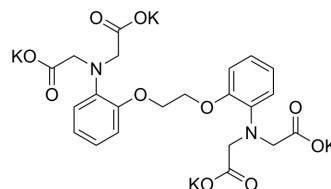
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BAPTA tetrapotassium

| | |
|---------------------------|--|
| Cat. No.: | HY-100168B |
| CAS No.: | 73630-08-7 |
| Molecular Formula: | C ₂₂ H ₂₀ K ₄ N ₂ O ₁₀ |
| Molecular Weight: | 628.79 |
| Target: | Phospholipase |
| Pathway: | Metabolic Enzyme/Protease |
| 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

H₂O : 125 mg/mL (198.79 mM; Need ultrasonic)

| Concentration | Mass | | |
|---------------|-----------|-----------|------------|
| | 1 mg | 5 mg | 10 mg |
| 1 mM | 1.5904 mL | 7.9518 mL | 15.9036 mL |
| 5 mM | 0.3181 mL | 1.5904 mL | 3.1807 mL |
| 10 mM | 0.1590 mL | 0.7952 mL | 1.5904 mL |

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

BIOLOGICAL ACTIVITY

Description

BAPTA tetrapotassium is a selective chelator for calcium. BAPTA, as calcium indicator, has high selectivity against magnesium and calcium. BAPTA tetrapotassium 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 tetrapotassium can also inhibit phospholipase C activity independently of their role as Ca²⁺ chelators^{[1][2][4]}.

In Vitro

BAPTA (0.3-30 μM; 1 h) can be used for the prevention of [Ca²⁺]-induced cell damage, but disturbs calcium signalling in single 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.

- Mil Med Res. 2023 Nov 25;10(1):56.
- Adv Sci (Weinh). 2021 May 27;e2100363.
- J Thromb Haemost. 2021 Aug 19.
- Sci Total Environ. 2020 Feb 10;703:134702.

See more customer validations on www.MedChemExpress.com

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*

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

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