EGTA-AM

Cat. No.: HY-D0973

CAS No.: 99590-86-0

Molecular Formula: $C_{26}H_{40}N_2O_{18}$

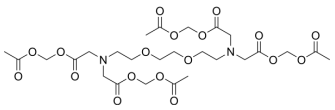
Molecular Weight: 668.6

Target: Biochemical Assay Reagents

Pathway: Others

Storage: -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (149.57 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4957 mL	7.4783 mL	14.9566 mL
	5 mM	0.2991 mL	1.4957 mL	2.9913 mL
	10 mM	0.1496 mL	0.7478 mL	1.4957 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (3.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

EGTA-AM is a membrane permeable form of EGTA, can be passively loaded into cells to generate intracellular EGTA; EGTA-AM is also a Ca^{2+} chelator with slow chelating dynamics.

In Vitro

EGTA-AM (50 μM) markedly reduces the asynchronous excitatory postsynaptic currents (aEPSC) to 58.9 ± 8.1% of the control level, but only reduces the synchronous excitatory postsynaptic currents (EPSCs), measured as charge transfer produced by the stimulation train[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Commun. 2021 Jan 28;12(1):662.
- Front Physiol. 05 January 2022.
- Research Square Preprint. 2024 Mar 13.

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REFERENCES

[1]. Li MJ, et al. Cholinergic and glutamatergic transmission at synapses between pedunculopotine tegmental nucleus axonal terminals and A7 catecholamine cell group noradrenergic neurons in the rat. Neuropharmacology. 2016 Nov;110(Pt A):237-50

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

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