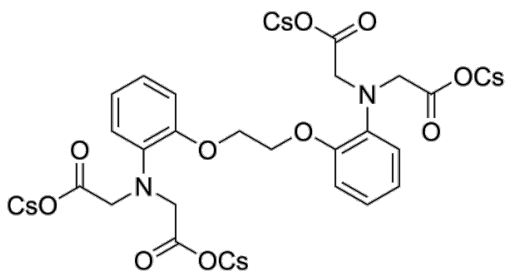
Product Data Sheet

Product Name: BAPTA tetracesium
Cat. No.: GC79747

Chemical Properties

Cas. No.	480436-84-8		
Formula	$C_{22}H_{20}Cs_4N_2O_{10}$	M.Wt	1004.02
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

BAPTA tetracesium is a selective and cell-impermeant chelator for calcium. BAPTA tetracesium has high selectivity against magnesium and calcium. BAPTA tetracesium can also inhibit phospholipase C activity independently of their role as Ca 2+ chelators [1] [2] [3].

In Vitro, BAPTA tetracesium is widely used as an intracellular buffer to investigate the effects caused by Ca2+ release from intracellular calcium stores or Ca2+ influx via Ca2+-permeable channels in the plasma membrane[1]. BAPTA tetracesium can be introduced into cells via methods such as patch-

clamp and microinjection[1]. BAPTA tetracesium inhibits PLC activity in isolated Drosophila melanogaster photoreceptor cells with an IC_{50} of approximately 8 mM[2].

References:

[1]. Tsien RY, et al. New calcium indicators and buffers with high selectivity against magnesium and protons: design, synthesis, and properties of prototype structures. Biochemistry. 1980;19(11):2396-2404.
[2]. Hardie RC. 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]. Collatz MB, et al. Intracellular calcium chelator BAPTA protects cells against toxic calcium overload but also alters physiological calcium responses. Cell Calcium. 1997;21(6):453-459.

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