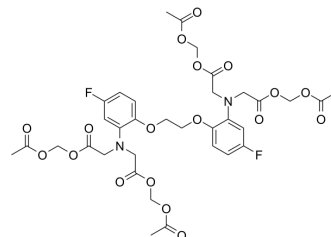


5,5'-Difluoro BAPTA

Cat. No.:	HY-147186
CAS No.:	156027-00-8
Molecular Formula:	C ₃₄ H ₃₈ F ₂ N ₂ O ₁₈
Molecular Weight:	800.66
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	5,5'-Difluoro BAPTA is a difluoro-derivative of BAPTA (HY-100168). 5,5'-Difluoro BAPTA is the most widely used probe for studying cytosolic free Ca ²⁺ by ¹⁹ F NMR. 5,5'-Difluoro BAPTA has high selectivity for Ca ²⁺ . 5,5'-Difluoro BAPTA can inhibit the growth of pollen tube ^{[1][2]} .
In Vitro	5,5'-Difluoro BAPTA shows large ¹⁹ F NMR chemical shifts upon chelating divalent cations ^[1] . Fe ²⁺ ion concentrations were measured following addition of 5 mM 5,5'-Difluoro BAPTA to the culture medium. Fe ²⁺ forms a complex with 5,5'-Difluoro BAPTA (K _d =50 nM) that exhibits a characteristic peak down-field from biological ions such as Ca ²⁺ and Zn ²⁺ ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Bar-Shir A, et al. Metal ion sensing using ion chemical exchange saturation transfer ¹⁹F magnetic resonance imaging. *J Am Chem Soc.* 2013 Aug 21;135(33):12164-7.
- [2]. Pierson ES, et al. Pollen tube growth is coupled to the extracellular calcium ion flux and the intracellular calcium gradient: effect of BAPTA-type buffers and hypertonic media. *Plant Cell.* 1994 Dec;6(12):1815-28.
- [3]. Kostellow AB, et al. Iron-catalyzed lipid peroxidation in aortic cells in vitro: protective effect of extracellular magnesium. *Atherosclerosis.* 2004 Jul;175(1):15-22.

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

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