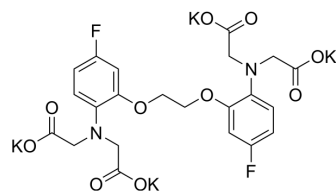


## 5',5'-Difluoro BAPTA tetrapotassium

<b>Cat. No.:</b>	HY-D1640
<b>CAS No.:</b>	152290-47-6
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>18</sub> F <sub>2</sub> K <sub>4</sub> N <sub>2</sub> O <sub>10</sub>
<b>Molecular Weight:</b>	664.78
<b>Target:</b>	Biochemical Assay Reagents
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	5,5'-Difluoro BAPTA tetrapotassium is a difluoro-derivative of <a href="#">BAPTA</a> (HY-100168). 5,5'-Difluoro BAPTA tetrapotassium shows large <sup>19</sup> F NMR chemical shifts upon chelating divalent cations. 5,5'-Difluoro BAPTA tetrapotassium has high selectivity for Ca <sup>2+</sup> . 5,5'-Difluoro BAPTA tetrapotassium can inhibit the growth of pollen tube <sup>[1][2]</sup> .
<b>In Vitro</b>	Fe <sup>2+</sup> ion concentrations were measured following addition of 5 mM 5,5'-Difluoro BAPTA tetrapotassium to the culture medium. Fe <sup>2+</sup> forms a complex with 5,5'-Difluoro BAPTA tetrapotassium (K <sub>d</sub> =50 nM) that exhibits a characteristic peak down-field from biological ions such as Ca <sup>2+</sup> and Zn <sup>2+</sup> <sup>[3]</sup> . 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 <sup>19</sup>F 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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