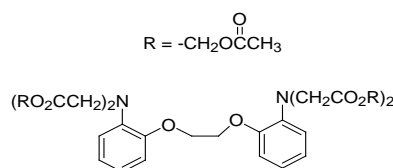


## PRODUCT AND SAFETY DATA SHEET

**PRODUCT NAME:** BAPTA, AM ester**CATALOG #** 50000/50000-1**MOLECULAR INFORMATION:** C<sub>34</sub>H<sub>40</sub>N<sub>2</sub>O<sub>18</sub>  
MWt: 765**PROPERTIES:**

**Color & Form** Colorless solid  
**Solubility** Soluble in DMSO  
**Purity** ≥98% by TLC  
**Absorption/Emission** N/A  
**Extinction Coefficient** N/A

**STORAGE AND HANDLING:** Store desiccated at -20°C.**APPLICATION:**

BAPTA and its derivatives are calcium chelators that are commonly used to form calcium buffers with well-defined calcium concentrations. By injecting the chelators into cells or by incubating cells with the AM ester form of the chelators, one can control the cytosolic calcium concentration, an important means to study the roles of calcium. Key advantages of these calcium chelators include relative insensitivity toward intracellular pH change and fast release of calcium. Biotium offers several BAPTA chelators with calcium dissociation constants covering the biologically significant range from 10<sup>-7</sup> to 10<sup>-2</sup> M.

## Physical properties of BAPTA chelators

Chelator Name	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	Mwt*	K <sub>d</sub> (μM)**
BAPTA	H	H	H	477	No Mg <sup>2+</sup> : 0.59 1 mM Mg <sup>2+</sup> : 0.70
5,5'-Dibromo BAPTA	H	Br	Br	635	No Mg <sup>2+</sup> : 3.6
5,5'-Difluoro BAPTA	H	F	F	513	No Mg <sup>2+</sup> : 0.61 1 mM Mg <sup>2+</sup> : 0.72
5,5'-Dimethyl BAPTA	H	CH <sub>3</sub>	CH <sub>3</sub>	505	No Mg <sup>2+</sup> : 0.16 1 mM Mg <sup>2+</sup> : 0.44
5-Methyl-5'-nitro BAPTA	H	NO <sub>2</sub>	CH <sub>3</sub>	536	No Mg <sup>2+</sup> : 53
5-Mononitro BAPTA	H	NO <sub>2</sub>	H	522	No Mg <sup>2+</sup> : 94
4-Trifluoromethyl BAPTA	CF <sub>3</sub>	H	H	545	No Mg <sup>2+</sup> : 0.57

## RELATED PRODUCTS

Cat. No.	Product Name	Unit Size	Unit Price \$ (1-4 units)	Unit Price \$ (>4 units)
50000	BAPTA, AM ester	25mg	100.00	90.00
50000-1	BAPTA, AM ester	20 x 1mg	125.00	112.50
50001	BAPTA, tetraacesium salt	1g	150.00	135.00
50002	BAPTA, tetrapotassium salt	1g	90.00	81.00
50003	BAPTA, tetrasodium salt	1g	90.00	81.00
50004	5,5'-Dibromo BAPTA, tetrapotassium salt	100mg	95.00	85.50
50005	5,5'-Difluoro BAPTA, AM ester	25mg	160.00	144.00
50006	5,5'-Difluoro BAPTA, tetrapotassium salt	100mg	130.00	117.00
50007	5,5'-Dimethyl BAPTA, AM ester	25mg	125.00	112.50
50008	5,5'-Dimethyl BAPTA, tetrapotassium salt	100mg	60.00	54.00
50009	5-methyl-5'-nitro BAPTA, tetrapotassium salt	10mg	150.00	135.00
50017	5-mononitro BAPTA, tetrapotassium salt	10mg	150.00	135.00

**TOXICITY:** Not established. Not listed by NTP, IARC or OSHA.

**FIRST AID:** Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.

**Disclaimer:** Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use. Biotium is not liable for any damage resulting from handling or contact with this product.