

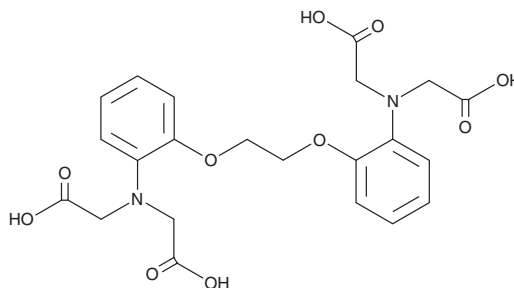
# PRODUCT INFORMATION



## BAPTA

Item No. 11706

**CAS Registry No.:** 85233-19-8  
**Formal Name:** N,N'-[1,2-ethanediylbis(oxy-2,1-phenylene)]bis[N-(carboxymethyl)-glycine]  
**MF:** C<sub>22</sub>H<sub>24</sub>N<sub>2</sub>O<sub>10</sub>  
**FW:** 476.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 210, 249, 288 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

BAPTA is supplied as a crystalline solid. A stock solution may be made by dissolving the BAPTA in the solvent of choice, which should be purged with an inert gas. BAPTA is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BAPTA in these solvents is approximately 20 mg/ml.

BAPTA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BAPTA should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BAPTA has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

BAPTA is a membrane-impermeable calcium chelator that binds extracellular calcium ions.<sup>1,2</sup> The presence of four carboxylic acid functional groups allows for the binding of two calcium ions. BAPTA and its derivatives are widely used for the measurement and manipulation of intracellular free calcium concentration.

### References

1. Sabnis, R.W. *Handbook of biological dyes and stains: Synthesis and industrial applications*. 1<sup>st</sup> edition, John Wiley & Sons, Inc., New Jersey (2010).
2. Grynkiewicz, G., Poenie, M., and Tsien, R.Y. A new generation of Ca<sup>2+</sup> indicators with greatly improved fluorescence properties. *J. Biol. Chem.* **260**(6), 3440-3450 (1985).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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