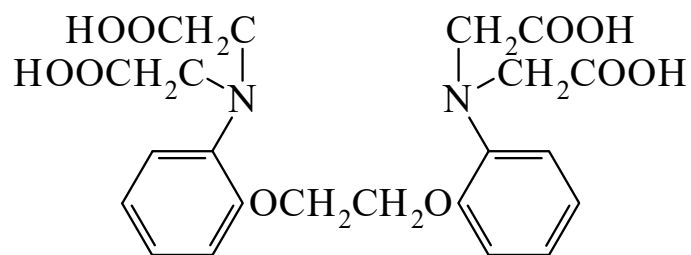




>>Entry Name: 1,2-Bis(2-aminophenoxy)ethane-*N,N,N',N'*-tetraacetic acid

Synonym(s): *N,N'*-[1,2-Ethanediyibis(oxy-2,1-phenylene)]bis[*N*-(carboxymethyl)glycine], 9Cl. BAPTA



CAS Registry Number: 85233-19-8

Related CAS Registry Numbers(s): 73630-08-7

Molecular Formula: C₂₂H₂₄N₂O₁₀

Molecular Weight: 476.439

Accurate Mass: 476.143098

Percentage Composition: C 55.46%; H 5.08%; N 5.88%; O 33.58%

Use/Importance: Highly selective buffer and optical indicator for cellular Ca²⁽⁺⁾ ions

Melting Point: Mp 172-178°

Aldrich: 34388-9

Fluka: 14510

Sigma: A3664

>>Derivative: Tetra-Me ester

Molecular Formula: C₂₆H₃₂N₂O₁₀

Molecular Weight: 532.546

Accurate Mass: 532.205698

Percentage Composition: C 58.64%; H 6.06%; N 5.26%; O 30.04%

Physical Description: Cryst.

Melting Point: Mp 95-97°

>>Derivative: Tetra-Et ester

CAS Registry Number: 73630-07-6

Molecular Formula: C₃₀H₄₀N₂O₁₀

Molecular Weight: 588.653

Accurate Mass: 588.268298

Percentage Composition: C 61.21%; H 6.85%; N 4.76%; O 27.18%

Melting Point: Mp 95-97°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 1194A, (*nmr*)

Tsien, R.Y., *Biochemistry*, 1980, **19**, 2396, (*synth, pmr, uv, use*)

Chaincone, E. *et al.*, *J. Biol. Chem.*, 1986, 261; 16306, (*use*)

Adams, S.R. *et al.*, *J.A.C.S.*, 1989, **111**, 7957, (*deriv, synth, use*)