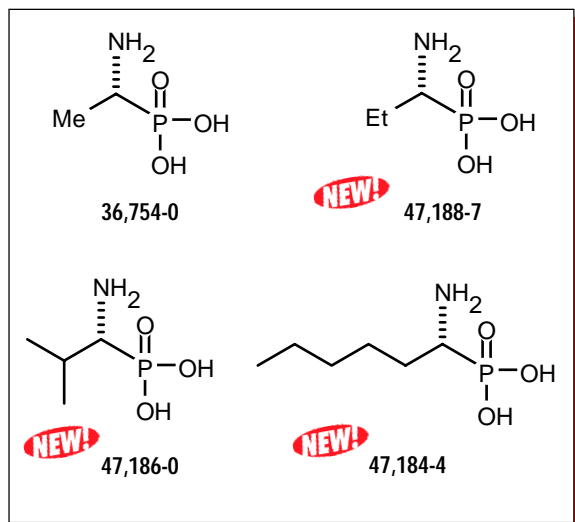


Homochiral α -Amino Phosphonic Acids

for biological and medicinal research



α -Amino phosphonic acids serve as attractive substitutes for amino carboxylic acids in biological systems. The absolute configuration of the α -carbon strongly influences the biological properties of α -amino phosphonic acids. The pK_a values of α -amino phosphonic acids are generally similar to those of the corresponding amino acids.¹ Phosphonic acids are doubly ionized at physiological pH which may affect their potency as enzyme inhibitors. These compounds exhibit interesting and useful properties as peptide analogs,² antiviral agents,³ haptens for the generation of catalytic antibodies,⁴ enzyme inhibitors,⁵ potent antibiotics,⁶ herbicides, and pesticides.

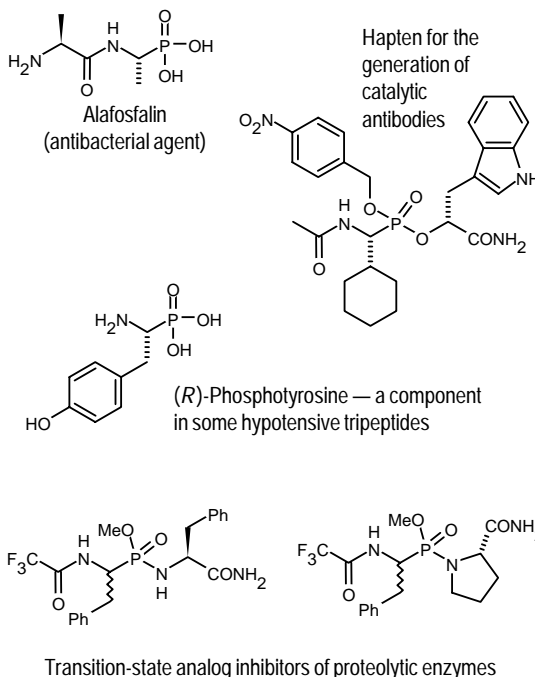
Aldrich continues to expand its line of homo-chiral α -amino phosphonic acids. Recent additions are shown below. Both enantiomers are available.

Products

36,754-0	(R)-(-)-(1-Aminoethyl)phosphonic acid, 99%	100mg; 1g
36,755-9	(S)-(+)-(1-Aminoethyl)phosphonic acid, 99%	100mg; 1g
47,188-7	(1R)-(1-Aminopropyl)phosphonic acid	250mg
NEW!		
47,189-5	(1S)-(1-Aminopropyl)phosphonic acid	250mg
NEW!		
47,186-0	(1R)-(1-Amino-2-methylpropyl)phosphonic acid	250mg
NEW!		
47,187-9	(1S)-(1-Amino-2-methylpropyl)phosphonic acid	250mg
NEW!		
47,184-4	(1R)-(1-Aminoethyl)phosphonic acid	250mg
NEW!		
47,185-2	(1S)-(1-Aminoethyl)phosphonic acid	250mg
NEW!		

References: (1) Corbridge, D.E.C. *Phosphorus — An Outline of its Chemistry, Biochemistry and Uses*, 5th ed.; Elsevier: New York, 1995; Chapter 3. (2) Lavielle, G. et al. *J. Med. Chem.* **1991**, *34*, 1998. (3) Camp, N.P. et al. *Bioorg. Med. Chem. Lett.* **1992**, *2*, 1047. (4) Hirschmann, R. et al. *Science* **1994**, *265*, 234. (5) Allen, M.C. et al. *J. Med. Chem.* **1989**, *32*, 1652. Bird, J. et al. *ibid.* **1994**, *37*, 158. (6) Atherton, F.R. et al. *ibid.* **1986**, *29*, 29.

Examples of biologically active α -amino phosphonate derivatives



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