

Abbreviations

The abbreviations for amino acids and their use in the formation of derivatives follow in general the 1983 Recommendations of the IUB-IUPAC Joint Commission, which were reprinted as an Appendix in Volume 16 of this series. These are also published in:

Eur. J. Biochem., 1984, **138**, 9–37; *Int. J. Pept. Protein Res.*, 1984, **24**, after p.84; and *J. Biol. Chem.*, 1985, **260**, 1442.

A complete listing of the single-letter codes for amino acids appeared in the Abbreviations section of Volume 24 of these Reports, together with structures for the closely related BOP family of coupling reagents.

Chapter authors have been encouraged annually to include new abbreviations in their texts. With the ever increasing diversification in structures, lists of unusual abbreviations are periodically compiled. Some examples are listed below.

Abo	2-azabicyclo[2.2.2]octane-3-carboxylic acid
Abu	α -aminobutyric acid
A ₂ bu	2,4-diaminobutyric acid
ACCA	4-aminocyclohexanecarboxylic acid
ϵ Ahx	6-aminohexanoic acid
Aib	α -aminoisobutyric acid
Aic	2-aminoindane-2-carboxylic acid
A ₂ pr	2,3-diaminopropionic acid
Atc	2-aminotetralin-2-carboxylic acid
Ava	5-aminopentanoic acid
Aze	azetidine-2-carboxylic acid
Cha	3-cyclohexylalanine
Cpg	α -cyclopentylglycine
Cpp	1-mercaptocyclohexaneacetic acid, or β -mercapto- β , β -cyclopentamethylenepropionic acid, or Pmp (<i>below</i>)
<i>c</i> PzACAla	<i>cis</i> -3-(4-pyrazinylcarbonylamino)cyclohexyl)alanine
Dab	2,4-diaminobutyric acid
Dap	2,3-diaminopropionic acid
Dbf	3-(2-dibenzofuranyl)alanine
Dip	3,3-diphenylalanine
Dph	α , α -diphenylglycine
Dpr	2,3-diaminopropionic acid
Gly(Ph)	phenylglycine
Har	homoarginine
Hib	α -hydroxyisobutyric acid

Hyp	<i>trans</i> -4-hydroxyproline
Iva	isovaline
Mpt	<i>trans</i> -4-mercaptoproline
1-Nal	3-(1-naphthyl)alanine
2-Nal	3-(2-naphthyl)alanine
Nap	β -(1'-naphthyl)alanine
Oic	octahydroindolecarboxylic acid
Opt	<i>O</i> -phenyltyrosine
3-Pal	3-(pyridyl)alanine
Pen	penicillamine
Phg	phenylglycine
Pip	pipecolic acid
Pmp	β,β -pentamethylene- β -mercaptopropionic acid, <i>or</i> Cpp (<i>above</i>)
Qal	3-(3-quinolyl)alanine
Qua	quinoline-2-carboxamide
Sar	sarcosine
Thi	β -thienylalanine
Tic	1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

