



## Chemical & Biochemical Abbreviations

Aad	L- $\alpha$ -Aminoadipyl
ABC	Avidin-biotin complex
Abu	L- $\alpha$ -Aminobutyryl ((S)-2-Amino-butanoyl)
3-Abz	3-Aminobenzoyl
4-Abz	4-Aminobenzoyl
Abz	2-Aminobenzoyl (Anthraniloyl)
Ac	Acetyl
Acm	Acetamidomethyl
ACTH	Adrenocorticotrophic hormone
Admoc	1-(1'-Adamantyl)-1-methyl-ethoxycarbonyl
AEC	3-Amino-9-ethylcarbazole
AFC	7-Amido-4-trifluoromethylcoumaryl
Agl	$\alpha$ -Amino-L-glycyl
$\epsilon$ Ahx	$\epsilon$ -Aminohexanoyl
Aib	$\alpha$ -Aminoisobutyryl ( $\alpha$ -Methyl-alanyl)
Aloc	Allyloxycarbonyl
AMC	7-Amido-4-methylcoumaryl
ANF	Atrial natriuretic factor
Asu	L- $\alpha$ -Aminosuberoyl (L-2-Amino-7-carboxyheptanoyl)
B	Bovine
BAM	Bovine adrenal medulla
BCG	Bacillus Calmette-Guerin
BHA	Benzhydramine
BNP	Brain natriuretic peptide
Boc (t-Boc)	t-Butyloxycarbonyl
Bom	Benzyloxymethyl
BOP	Benzotriazole-1-yl-oxy-tris(dimethylamino)phosphonium hexafluorophosphate
Bpa	4-Benzoyl-L-phenylalanyl
Bpoc	2-(4-Biphenyl)-isopropylloxycarbonyl
BSA	Bovine serum albumin
BSi	t-Butyldimethylsilyl
Bz	Benzoyl
Bzl	Benzyl
Cbz (Z)	Benzyloxycarbonyl
CCK	Cholecystokinin
CDI	1,1'-Carbonyldiimidazole
CFU-M	Colony-forming unit for monocytes
CGRP	Calcitonin gene-related peptide
CHA	Cyclohexylammonium salt
Cha	$\beta$ -Cyclohexyl-L-alanine
Chloroac	Chloroacetyl
Cit	L-Citrullyl ((S)-2-Amino-5-ureido-pentanoyl)
CNP	C-Type natriuretic peptide
CRF	Corticotropin-releasing factor
CSF	Cerebrospinal fluid
DAB	3,3-Diaminobenzidine tetrahydrochloride
Dab	L- $\alpha$ , $\gamma$ -Diaminobutyryl
DABCYL	4-(4-Dimethylaminophenylazo)benzoyl
DBU	1,8-Diazobicyclo[5.4.0]undec-7-ene
DCC	N,N'-Dicyclohexylcarbodiimide
Dap	L- $\alpha$ , $\beta$ -Diaminopropionyl
DCHA	Dicyclohexylammonium salt

Dde	1-(4,4-Dimethyl-2,6-dioxocyclohex-1-ylidene)ethyl
DEA	Diethylammonium salt
DEPBT	3-(Diethoxyphosphoryloxy)-1,2,3-benzotriazin-4(3H)-one
DIC	1,3-Diisopropylcarbodiimide
DIEA	Diisopropylethylamine
Dif	L-Diphenylalanine
DMA	N,N-Dimethylacetamide
DMAP	4-Dimethylaminopyridine
DMF	N,N-Dimethylformamide
DMT-Cl	4, 4'-Dimethoxytrityl chloride
Dnp	2,4-Dinitrophenyl
Dod	4,4'-Dimethoxydityl/Bis-[4-methoxyphenyl]-methyl
Dpm	Diphenylmethyl
DSC	N,N'-Disuccinimidyl carbonate
DSIP	Delta-sleep inducing peptide
EDANS	5-[(2-Aminoethyl)amino]naphthalene-1-sulfonic Acid
EDC·HCl	1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride
EDT	1,2-Ethanedithiol
EDTA	Ethylenediaminetetraacetic acid
EEDQ	2-Ethoxy-1-ethoxycarbonyl-1,2-dihydroquinoline
EGF	Epidermal growth factor
EIA	Enzyme immunoassay
ELAM	Endothelial leukocyte adhesion molecule
ELISA	Enzyme-linked immunosorbent assay
EMAP	Endothelial-monocyte-activating polypeptide
Et	Ethyl
ET	Endothelin
FA	3-(2-Furyl)acryloyl
FACS	Fluorescence-activated cell sorting
FGF	Fibroblast growth factor
FITC	Fluorescein isothiocyanate
Fm	Fluorenylmethyl
Fmoc	9-Fluorenylmethyloxycarbonyl
For	Formyl
GH	Growth hormone
GIP	Gastric inhibitory polypeptide
Gla	γ-Carboxy-L-glutamyl
GLP	Glucagon-like peptide
GnRH	Gonadotropin-releasing hormone
gp	Glycoprotein
GRF	Growth hormone-releasing factor
GRP	Gastrin releasing peptide
HATU	O-(7-Azabenzotriazole-1-yl)-1,1,3,3-tetramethyluronium hexafluorophosphate
HBr	Hydrobromic acid
HBTU	O-(Benzotriazole-1-yl)-1,1,3,3-tetramethyluronium hexafluorophosphate
HBsAg	Hepatitis B surface antigen
HCl	Hydrochloric acid
HCTU	2-(6-Chloro-1H-benzotriazole-1-yl)-1,1,3,3-tetramethylaminium hexafluorophosphate
HMBA	4-Hydroxymethylbenzoic acid
HMPA	4-Hydroxymethylphenoxyacetic acid
HOAt	1-Hydroxy-7-azabenzotriazole
HOBt	1-Hydroxybenzotriazole
Homoarg	L-Homoarginyl (L-α-Amino-ε-guanidinohexanoyl)
Homocit	L-Homocitrullyl (L-α-Amino-ε-ureidohexanoyl)
Homocys	L-Homocysteinylyl (L-α-Amino-γ-mercaptobutyryl)
Homophe	L-Homophenylalanyl (L-α-Amino-γ-phenylbutyryl)
Homopro	L-Homopropyl (L-Pipecoloyl/(S)-Piperidine-2-carbonyl)
Homoser	L-Homoseryl ((L)-α-Amino-γ-hydroxybutyryl)
HONB	N-Hydroxy-5-norbornene-endo-2,3-dicarboximide

HOSu	N-Hydroxysuccinimide
HRPO	Horseradish peroxidase
Hyp	trans-4-Hydroxy-L-proline
D-Hyp	trans-4-Hydroxy-D-proline
cis-D-Hyp	cis-4-Hydroxy-D-proline
cis-Hyp	cis-4-Hydroxy-L-proline
ICAM	Intercellular adhesion molecule
IFN	Interferon
Ig	Immunoglobulin
IGF	Insulin-like growth factor
IHC	Immunohistochemistry
IL	Interleukin
KLH	Keyhole limpet hemocyanin
LFA-1	Lymphocyte function-associated antigen-1
LHRH	Luteinizing hormone-releasing hormone
MBHA	4-Methylbenzhydramine
Mbs	4-Methoxybenzenesulfonyl
MbzI	4-Methylbenzyl
Mca	(7-Methoxycoumarin-4-yl)acetyl
MCH	Melanin-concentrating hormone
MCP	Monocyte chemotactic protein
MDPSE	2-(Methyl-diphenyl-silyl)-ethyl
Me	Methyl
MeOSuc	3-Methoxysuccinyl
Met(O)	L-Methionine sulfoxide
Met(O)2	L-Methionine sulfone
MHC	Major histocompatibility complex
Mmt	4-Methoxytrityl
4M $\beta$ NA	4-Methoxy- $\beta$ -naphthylamide
Mob	4-Methoxybenzyl
Msc	(2-Methylsulfonyl)ethyloxycarbonyl
MSH	Melanocyte-stimulating hormone
Mtr	4-Methoxy-2,3,6-trimethylbenzenesulfonyl
Mts	Mesitylene-2-sulfonyl
Mtt	4-Methyltrityl
Mu	4-Morpholinecarbonyl
$\alpha$ NA	$\alpha$ -Naphthylamide
$\beta$ NA	$\beta$ -Naphthylamide
pNA	p-Nitroanilide
1-Nal	$\beta$ -(1-Naphthyl)-L-alanyl
2-Nal	$\beta$ -(2-Naphthyl)-L-alanyl
NHEt	N-Ethylamide
NHMe	N-Methylamide
NHNH2	Hydrazide
NHOH	Hydroxamate
NHtBu	N-t-Butylamide
Nle	L-2-Aminohexanoyl
NMe2	N,N-Dimethylamide
NMP	N-Methylpyrrolidine
Npg	L-Neopentylglycine ( $\beta$ -t-Butyl-L-alanine)
NO2	Nitro
Nps	2-Nitrophenylsulfanyl
NPY	Neuropeptide Y
NPys	3-Nitro-2-pyridinesulfanyl
Nva	L-2-Aminovaleryl
OAlI	Allyl ester
OBzI	Benzyl ester
OcHex	Cyclohexyl ester
OcPent	Cyclopentyl ester

ODhbt	3,4-Dihydro-4-oxo-1,2,3-benzotriazine-3-ylester
ODmab	4-(N-[1(4,4-Dimethyl-2,6-dioxocyclohexylidene)-3-methylbutyl]amino)benzyl ester
ODmb	2,4-Dimethoxybenzyl ester
OEt	Ethyl ester
OFm	Fluorenylmethyl ester
OHex	Hexyl ester
Oic	L-Octahydroindole-2-carbonyl
OMe	Methyl ester
OMpe	3-Methyl-pent-3-yl ester
ONp	p-Nitrophenyl ester
OPcp	Pentachlorophenyl ester
OPfp	Pentafluorophenyl ester
OPh	Phenyl ester
OSu	N-Hydroxysuccinimide ester
OtBu	t-Butyl ester
p	Paraffin
pSer	Phospho-L-serine
pThr	Phospho-L-threonine
pTyr	Phospho-L-tyrosine
Pac	Phenylacetyl
PACAP	Pituitary adenylate cyclase activating polypeptide
Pam	Palmitoyl
PAM	Phenylacetamidomethyl
Pbf	2,2,4,6,7-Pentamethyldihydrobenzofuran-5-sulfonyl
PBL	Periphere blood leukocytes
PBS	Phosphate buffered saline
PEG	Polyethylene glycol
Pen	L-Penicillaminyl ( $\beta$ , $\beta$ -Dimethyl-L-cysteinyI)
Phenylac	Phenylacetyl
Phg	L-Phenylglycyl
PHI	Peptide histidine isoleucine
PHM	Peptide histidine methionine
pl	Plasma
PLP	Periodate lysine paraformaldehyde
Pmc	2,2,5,7,8-Pentamethylchroman-6-sulfonyl
Pra	L-Propargylglycyl
PSA	Prostate-specific antigen
pTH	Parathyroid hormone
PyBOP	Benzotriazole-1-yl-oxy-tris-pyrrolidino-phosphonium hexafluorophosphate
PyBrOP	Bromo-tris-pyrrolidino-phosphonium hexafluorophosphate
Pyr	L-Pyroglutamyl
Pz	4-Phenylazobenzoyloxycarbonyl
®	Resin
rec	Recombinant
RIA	Radioimmunoassay
SA-HRP	Streptavidin-conjugated horseradish peroxidase
Sar	Sarcosyl (N-Methylglycyl)
SBzl	Thiobenzyl ester
SEt	Ethylthio
SPPS	Solid phase peptide synthesis
SPOS	Solid phase organic synthesis
sr	Serum
Sta	Statyl ((3S,4S)-4-Amino-3-hydroxy-6-methylheptanoyl)
StBu	t-Butylthio
Suc	3-Carboxy-propionyl
TATU	O-(7-Azabenzotriazole-1-yl)-N,N,N',N'-tetramethyluronium tetrafluoroborate
TBS	Tris buffered saline
TBTU	O-Benzotriazole-1-yl-1,1,3,3-tetramethyluronium tetrafluoroborate
tBu	t-Butyl

TDBTU	N,N,N',N'-Tetramethyl-O-(3,4-dihydro-4-oxo-1,2,3-benzotriazin-3-yl)uranium tetrafluoroborate
TEA	Triethylamine
TFA	Trifluoroacetic acid
Tfa	Trifluoroacetyl
TFE	Trifluoroethanol
TFFH	Tetramethylfluoroformamidinium hexafluorophosphate
TFMSA	Trifluoromethanesulfonic acid
TGF	Transforming growth factor
Tic	L-1,2,3,4-Tetrahydroisoquinoline-3-carbonyl
Tle	L-t-Leucyl (L-t-Butylglycyl)
TMB	3,3' 5,5'-Tetramethyl benzidine dichloride
Tmob	2,4,6-Trimethoxybenzyl
TMSOTf	Trimethylsilyloxytrifluoromethanesulfonate
TMR	Tetramethylrhodamine
Tnm	Trishydroxymethylnitromethane (ketalized with cyclohexanone)
Tos	Tosyl (4-Toluenesulfonyl)
Trt	Trityl
TSTU	O-(N-Succinimidyl)-1,1,3,3-tetramethyl uranium tetrafluoroborate
VCAM	Vascular cell adhesion molecule
VIC	Vasoactive intestinal contractor
VIP	Vasoactive intestinal peptide
Xan	Xanthy
Z (Cbz)	Benzyloxycarbonyl