

Abbreviations

ATP	adenosine triphosphate
AuNP	gold nanoparticle
Boc	butoxycarbonyl
br	broad
BT	benzotriazole
CDI	1, 1-carbonyldiimidazole
CPG	controlled pore glass
CPP	cell penetrating peptide
d	doublet
DCC	<i>N, N'</i> -dicyclohexylcarbodiimide
DCM	dichloromethane
dd	double doublet
DIC	<i>N, N'</i> -diisopropylcarbodiimide
DIPEA	<i>N, N'</i> -diisopropylethylamine
DMAP	4-dimethylaminopyridine
DMF	dimethylformamide
DMTrCl	dimethoxytrityl chloride
DNA	2'-deoxyribonucleic acid
ds	double stranded

DTT	dithiothreitol
EDC	<i>N</i> -(3-dimethylaminopropyl)- <i>N'</i> -ethylcarbodiimide
EDTA	ethylenediaminetetraacetic acid
Et ₂ O	diethyl ether
FACS	fluorescence activated cell sorter
FAM	fluorescein amidite
Fig	figure
Fmoc	9-fluorenylmethoxycarbonyl
FRET	fluorescence resonance energy transfer
HIV	human immunodeficiency virus
HOMO	highest occupied molecular orbital
HPLC	high performance liquid chromatography
LUMO	lowest unoccupied molecular orbital
M	molar
m	multiplet
MALDI-TOF MS	matrix assisted laser desorption ionisation - time of flight mass spectrometry
MBS	3-maleimidobenzoic acid <i>N</i> - hydroxysuccinimide ester
MeCN	acetonitrile
MeOH	methanol

mg	milligrams
MHz	megahertz
min	minute
ml	millilitre
MMTr	monomethoxytrityl
mRNA	messenger ribonucleic acid
mV	millivolts
NHS	<i>N</i> -hydroxysuccinimide
NLS	nuclear localisation sequence
nm	nanometers
NMR	nuclear magnetic resonance
NPys	bis-3-nitro-2,2'-pyridyl sulphide
Oligo	oligonucleotide
OPC	oligonucleotide peptide conjugate
PCR	polymerase chain reaction
PEG	polyethylene glycol
PEG-PS	polyethyleneglycol polystyrene
Pip	PNA internalisation peptide
PNA	peptide nucleic acid
PTD	protein transduction domain
Pys	pyridyl sulphide

q	quartet
RNA	ribonucleic acid
RP HPLC	reverse phase high performance liquid chromatography
s	singlet
SELEX	systematic evolution of ligands by exponential enrichment
SERRS	surface enhanced resonance Raman spectroscopy
SPR	surface plasmon resonance
ss	single stranded
t	triplet
TAMRA	tetramethylrhodamine
Tat	transactivating transcription
TBAF	tetra- <i>n</i> -butylammonium fluoride
TBDMSCl	<i>tert</i> -butyldimethylsilylchloride
TBE	tris borate EDTA
TEAA	triethylammonium acetate
TFA	trifluoroacetic acid
THF	tetrahydrofuran
TLC	thin layer chromatography
T _m	melting temperature

TNBS	trinitrobenzenesulfonic acid
Tryl	triphenylmethyl
UV-Vis	ultraviolet-visible