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Synthetic Studies Towards Oligonucleotide Derivatives and Conjugates

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Synthetic Studies Towards Oligonucleotide Derivatives and Conjugates

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List of abbreviations

A	(2'-deoxy-)adenosine	KDa	kilodalton
Ada	adamantoyl	KLH	keyhole limpet hemocyanin
Alk	alkyl	LC/MS	liquid chromatography/ mass spectrometry
BMT	5-benzyl-mercapto-tetrazole	m	multiplet
Bn	benzyl	mcm ⁵ U	5-methoxycarbonylmethyl-uridine
Boc	<i>tert</i> -butyloxycarbonyl	mcm ⁵ S ² U	5-methoxycarbonylmethyl-2-thiouridine
BODIPY	4,4-difluoro-4-bora-3 <i>a</i> ,4 <i>a</i> -diazas-indacene	MMTr	4-methoxytrityl
bs	broad singlet	m/z	mass-to-charge ratio
BSA	bovine serum albumin	NMP	<i>N</i> -methyl-2-pyrrolidone
Bt	benzotriazole	NMR	nuclear magnetic resonance
Bz	benzoyl	NOE	nuclear Overhauser effect
C	(2'-deoxy-)cytidine	Nu	nucleophile
CD	circular dichroism	<i>ON</i>	oligonucleotide
CE	2-cyanoethyl	PAGE	polyacrylamide gel electrophoresis
CPG	controlled pore glass	PBS	phosphate buffer saline
δ	chemical shift	PEG	polyethylene glycol
d	doublet	PES	potential energy surface
d (prefix)	2'-deoxy	PG	protective group
DCA	dichloroacetic acid	PS	polystyrene
dd	doublet of doublets	pTsOH	para-toluenesulfonic acid
ddd	doublet of doublet of doublets	q	quartet
DBU	1,8-diazabicyclo[5.4.0]undec-7-ene	RNA	ribonucleic acid
DCC	<i>N,N'</i> -dicyclohexylcarbodiimide	RP	reversed phase
DCM	dichloromethane	r.t.	room temperature
DCE	1,2-dichloroethane	RITRICO	ribose triazolyl annulated cyclooctyne
DCI	4,5-dicyanoimidazole	s	singlet
DIC	<i>N,N'</i> -diisopropylcarbodiimide	SDS	sodium dodecyl sulfate
DIAD	diisopropyl azo dicarboxylate	SPPS	solid phase peptide synthesis
DIPEA	<i>N,N</i> -diisopropyl-ethylamine	T	2'-deoxy-thymidine
DMAP	4-dimethylamino-pyridine	t	triplet
DMF	dimethylformamide	TAMRA	tetramethylrhodamine
DMTr/DMT	4,4'-dimethoxytrityl	<i>t</i> -Bu	<i>tert</i> -butyl
DNA	2'-deoxyribonucleic acid	TBAF	tetrabutylammonium fluoride
DTT	dithiothreitol	TBAI	tetrabutylammonium iodide
Dup	duplex	TBDMS	<i>tert</i> -butyl dimethylsilyl
ESI	electro spray ionization	TBDPS	<i>tert</i> -butyl-diphenylsilyl
Fmoc	Fluorenylmethyl-oxycarbonyl	TCA	trichloroacetic acid
G	(2'-deoxy-)guanosine	TEAA	triethylammonium acetate
GlcNAc	2-(Acetylamino)-2-deoxy-D-glucose	TES	triethylsilane
HCTU	<i>O</i> -(6-Chlorobenzotriazol-1-yl)- <i>N,N,N',N'</i> -tetramethyluroniumhexafluorophosphate	TIS	triisopropylsilane
HMDS	hexamethyldisilazane	TFA	trifluoroacetic acid
HOBt	<i>N</i> -hydroxy benzotriazole	THF	tetrahydrofuran
HPLC	high performance liquid chromatography	TLC	thin layer chromatography
HRMS	high resolution mass spectrometry	TLR	Toll-like receptor
Im	imidazole	TMS	trimethylsilyl
<i>i</i> -Pr	isopropyl	Ts	<i>para</i> -toluenesulfonyl
IR	infrared spectroscopy	U	uridine
<i>J</i>	coupling constant	UV	ultraviolet

One and three letter aminoacid codes follow the recommendations of the IUPAC as published in *Biochem. J.* **1984**, 219, 345-373.

