

Abbreviation of modified bases

(the help file from <http://www.uni-bayreuth.de/departments/biochemie/trna/>)

one letter code

	symbol		name
U	U		uridine
C	C		cytidine
A	A		adenosine
G	G		guanosine
T	T		thymine (for sequences of tRNA genes only)
-			empty position
<u>-</u>	(underline)		insertion (see footnote for further information)
.			unknown nucleotide
H	?A		unknown modified adenosine
"	m1A		1-methyladenosine
/	m2A		2-methyladenosine
+	i6A		N6-isopentenyladenosine
*	ms2i6A		2-methylthio-N6-isopentenyladenosine
=	m6A		N6-methyladenosine
6	t6A		N6-threonylcarbamoyladenosine
E	m6t6A		N6-methyl-N6-threonylcarbamoyladenosine
[ms2t6A		2-methylthio-N6-threonylcarbamoyladenosine
:	Am		2'-O-methyladenosine
I	I		inosine
O	m1I		1-methylinosine
^	Ar(p)		2'-O-ribosyladenosine (phosphat)
`	io6A		N6-(cis-hydroxyisopentenyl)adenosine
<	?C		unknown modified cytidine
%	s2C		2-thiocytidine
B	Cm		2'-O-methylcytidine
M	ac4C		N4-acetylcytidine
?	m5C		5-methylcytidine
'	m3C		3-methylcytidine
}	k2C		lysidine
>	f5C		5-formylcytidin
°	f5Cm		2-O-methyl-5-formylcytidin
;	G		unknown modified guanosine
K	m1G		1-methylguanosine
L	m2G		N2-methylguanosine
#	Gm		2'-O-methylguanosine
R	m22G		N2,N2-dimethylguanosine
	m22Gm		N2,N2,2'-O-trimethylguanosine
7	m7G		7-methylguanosine
(fa7d7G		archaeosine
Q	Q		queuosine
8	manQ		mannosyl-queuosine
9	galQ		galactosyl-queuosine
Y	yW		wybutosine
W	o2yW		peroxywybutosine
N	?U		unknown modified uridine
{	mn5U		5-methylaminomethyluridine
2	s2U		2-thiouridine
J	Um		2'-O-methyluridine
4	s4U		4-thiouridine

&	ncm5U	5-carbamoylmethyluridine
l	mcm5U	5-methoxycarbonylmethyluridine
S	mnm5s2U	5-methylaminomethyl-2-thiouridine
3	mcm5s2U	5-methoxycarbonylmethyl-2-thiouridine
V	cmo5U	uridine 5-oxyacetic acid
5	mo5U	5-methoxyuridine
!	cmnm5U	5-carboxymethylaminomethyluridine
\$	cmnm5s2U	5-carboxymethylaminomethyl-2-thiouridine
X	acp3U	3-(3-amino-3-carboxypropyl)uridine
,	mchm5U	5-(carboxyhydroxymethyl)uridinemethyl ester
)	cmnm5Um	5-carboxymethylaminomethyl-2'-O-methyluridine
~	ncm5Um	5-carbamoylmethyl-2'-O-methyluridine
D	D	dihydrouridine
P	psi	pseudouridine
]	m1psi	1-methylpseudouridine
Z	psi m	2'-O-methylpseudouridine
T	m5U	ribosylthymine
F	m5s2U	5-methyl-2-thiouridine
\	m5Um	5, 2'-O-dimethyluridine