

## Alphabetized List of Recognition Specificities

All restriction endonuclease recognition specificities available from New England Biolabs are listed below. For enzymes that recognize non-palindromic sequences, the complementary sequence of each strand is listed. For example, CCTC(7/6) and (6/7)GAGG both represent an MnlI ([NEB #R0163](#)) site.

All recognition sequences are written 5' to 3' using the [single letter code](#) nomenclature with the point of cleavage indicated by a "/".

Numbers in parentheses indicate point of cleavage for non-palindromic enzymes.

For example, GGTCTC(1/5) indicates cleavage at:

5' ...GGTCTCN/...3'

3' ...CCAGAGNNNNN/...5'

Recognition Sequence	Enzyme
AA/CGTT	<a href="#">AclI</a>
A/AGCTT	<a href="#">HindIII</a> <a href="#">HindIII-HF®</a>
AAT/ATT	<a href="#">SspI</a> <a href="#">SspI-HF®</a>
/AATT	<a href="#">MucI</a> <a href="#">Tsp509I</a>
A/CATGT	<a href="#">PciI</a>
A/CCGGT	<a href="#">AgeI</a> <a href="#">AgeI-HF</a> <a href="#">AgeI-HF®</a> <a href="#">RE-Mix®</a>
ACCTGC(4/8)	<a href="#">BspMI</a> <a href="#">BfuAI</a>
A/CCWGGT	<a href="#">SexAI</a>
A/CGCGT	<a href="#">Mui</a>
ACGGC(12/14)	<a href="#">BceAI</a>
A/CGT	<a href="#">HpyCH4IV</a>
ACN/GT	<a href="#">HpyCH4III</a>
(10/15)ACNNNNGTAYC(12/7)	<a href="#">BaeI</a>
(9/12)ACNNNNNCTCC(10/7)	<a href="#">BsaXI</a>
A/CRYGT	<a href="#">AfiIII</a>
A/CTAGT	<a href="#">SpeI</a> <a href="#">SpeI-HF®</a> <a href="#">SpeI RE-Mix®</a>
ACTGG(1/-1)	<a href="#">BsrI</a>
ACTGGG(5/4)	<a href="#">BmrI</a>
A/GATCT	<a href="#">BglII</a>
AGC/GCT	<a href="#">AfeI</a>
AG/CT	<a href="#">AulI</a>
AGG/CCT	<a href="#">StuI</a>
AGT/ACT	<a href="#">ScaI</a> <a href="#">ScaI-HF®</a> <a href="#">ScaI-HF®</a> <a href="#">RE-Mix®</a>
AT/CGAT	<a href="#">ClaI</a> <a href="#">BspDI</a>
ATCTATGTCGGGTGCGGAGAAAGAGTAAT(-15/-19)	<a href="#">PI-SceI</a>
ATGCA/T	<a href="#">NsiI</a>

AT/TAAT	Asel
ATTT/AAAT	Swal
(11/13)CAANNNNNGTGG(12/10)	CspCI
C/AATTG	MfeI MfeI-HF® MfeI-HF® RE-Mx®
CACGAG(-5/-1)	BssSI
CACGTC(-3/-3)	BmgBI
CAC/GTG	PmlI
CACNCAC	DvuIII
CACNNN/GTG	DrallI DrallI-HF®
CACNN/NNGTG	AleI
CAGCAG(25/27)	EcoP15I
CAG/CTG	PvuII PvuII-HF®
CAGNNN/CTG	AlwNI
CAGTG(2/0)	BtsIMutI
NNCASTGNN/	TspRI
CA/TATG	NdeI
CATG/	NlaIII
C/ATG	CviAI
/CATG	FatI
CAYNN/NNRTG	MsiI
CC(12/16)	FspEI
CCANNNNN/NNNNTGG	XcmI
CCANNNNN/NTGG	BstXI
CCANNNN/NTGG	PfiI
CCATC(4/5)	BclI
C/CATGG	NcoI NcoI-HF® NcoI-HF® RE-Mx®
CCCAGC(-5/-1)	BseYI
CCCGC(4/6)	FauI
CCC/GGG	SmaI
C/CCGGG	XmaI TspMI
(0/-1)CCD	Nt.CviPII
CCDG(10/14)	LpnPI
CCGC(-3/-1)	AcI
CCGC/GG	SacII
CCGCTC(-3/-3)	BsrBI
C/CGG	MspI HpaII
CC/NGG	SorFI
/CCNGG	BssKI StyD4I
C/CNNGG	BsaJI
CCNNNNN/NGG	BslI
C/CRYGG	BtgI
CC/SGG	NciI
C/CTAGG	AvrII
CCTC(7/6)	MhlI

CCTCAGC(-5/-2)	BbvCI
CCTCAGC	Nb.BbvCI
CCTCAGC(-5/-7)	Nt.BbvCI
CCTGCA/GG	SbfI SbfI-HF®
CCTNAGC(-5/-2)	Bpu10I
CC/TNAGG	Bsu36I
CCTNN/NNNAGG	EcoNI
CCTTC(6/5)	HpyAV
CC/WGG	BstNI
/CCWGG	PspGI
C/CWWGG	StyI StyI-HF®
(10/12)CGANNNNNNTGC(12/10)	BglI
CGAT/CG	PvuI PvuI-HF®
CG/CG	BstUI
C/GGCCG	EagI EagI-HF®
CG/GWCCG	RsrII
CGRY/CG	BsiEI
C/GTACG	BsiWI
CGTCTC(1/5)	BsmBI
CGWCG/	Hpy99I
CMG/CKG	MspA1I
CNNR(9/13)	MspJI
CR/CCGGYG	SgrAI
C/TAG	BfaI
CTCAG(9/7)	BspCNI
C/TCGAG	XhoI PaeR7I TliI XhoI RE-Mx®
CTCTTC(1/4)	EarI
CTGAAG(16/14)	AclI
CTGCA/G	PstI PstI-HF®
CTGGAG(16/14)	BpmI
C/TNAG	DdeI
C/TRYAG	SfiI
C/TTAAG	AflII
CTTGAG(16/14)	BpuEI
C/TYRAG	SmlI
C/YCGRG	AvaI BsoBI
GAAGA(8/7)	MboII
GAAGAC(2/6)	BbsI
GAANN/NN TTC	XmnI
GAATGC(1/-1)	BsmI
GAATGC	Nb.BsmI
G/AATTC	EcoRI EcoRI-HF® EcoRI-HF® RE-Mx®
GACGC(5/10)	HgaI
GACGT/C	AatII
GAC/GTC	ZraI

GACN/NGTC	Tth111I PfiFI
GACNN/NGTC	PshAI
GACNNN/NGTC	AhdI
GACNNNN/NGTC	DrdI
GAG/CTC	Eco53kl
GAGCT/C	SacI SacI-HF®
GAGGAG(10/8)	BseRI
GAGTC(4/5)	PleI
GAGTC(4/-5)	Nt.BstNBI
GAGTC(5/5)	Myl
G/ANTC	Hinfl
GAT/ATC	EcoRV EcoRV-HF® EcoRV-HF® RE-Mx®
/GATC	MboI Sau3AI DpnII BfuCI
GA/TC	DpnI
GATNN/NNATC	BsaBI
G/AWTC	TfiI
GCAATG(2/0)	BsrDI
GCAATG	Nb.BsrDI
GCAGC(8/12)	BbvI
GCAGTG(2/0)	BtsI
GCAGTG	Nb.BtsI
GCANNNN/NTGC	BstAPI
GCATC(5/9)	SfaNI
GCATG/C	SphI SphI-HF®
GCCGAG(21/19)	NmeAIII
GCC/GGC	NaeI
G/CCGGC	NgoMV
GCCNNNN/NGGC	BglI
GCGAT/CGC	AsiSI
GCGATG(10/14)	BtgZI
G/CGC	HinP1I
GCG/C	HhaI
G/CGCGC	BssHII
GC/GGCCGC	NotI NotI-HF® NotI-HF® RE-Mx®
GC/NGC	Fnu4HI
GCN/NGC	Cac8I
GCNNNNN/NGC	MwoI
G/CTAGC	NheI NheI-HF® NheI-HF® RE-Mx®
GCTAG/C	BmtI BmtI-HF®
GCTCTTC(1/4)	SapI BspQI
GCTCTTC(1/-7)	Nt.BspQI
GC/TNAGC	BipI
G/CWGC	TseI ApeKI
GDGCH/C	Bsp1286I

GGATC(4/5)	AlwI
GGATC(4/-5)	NtAlwI
G/GATCC	BamHI BamHI-HF®
GGATG(9/13)	FokI
GGATG(2/0)	BtsCI
GG/CC	HaeIII PfoI
GGCCGG/CC	FseI
GGCCNNNN/NGGCC	SfiI
GG/CGCC	NarI
G/GCGCC	KasI
GGC/GCC	SfoI
GGCGC/C	PluTI
GG/CGCGCC	Ascl Ascl RE-Mx®
GGCGGA(11/9)	EciI
GGGAC(10/14)	BsmFI
GGGCC/C	Apal
G/GGCCC	PspOMI
G/GNCC	Sau96I
GGN/NCC	NlaIV
GGTAC/C	KpnI KpnI-HF® KpnI-HF® RE-Mx®
G/GTACC	Acc65I
GGTCTC(1/5)	BsaI BsaI-HF®
GGTGA(8/7)	HphI
G/GTNACC	BstEII BstEII-HF® BstEII-HF® RE-Mx®
G/GWCC	Avall
G/GYRCC	BanI
GKGCMC	BaeGI
GR/CGYC	BsaHI
GRGCY/C	BanII
GT/AC	RsaI
G/TAC	CviQI
GTATAC	BstZ17I
GTATCC(6/5)	BciVI
G/TCGAC	Sall Sall-HF® Sall-HF® RE-Mx®
GTCTC(1/-5)	Nt.BsmAI
GTCTC(1/5)	BsmAI BcoDI
G/TGCAC	ApaLI
GTGCAG(16/14)	BsgI
GT/MKAC	AccI
GTN/NAC	Hpy166II
/GTSAC	Tsp45I
GTT/AAC	HpaI
GTTT/AAAC	PmeI
GTY/RAC	HindII
GWGCW/C	BsiHKAII

R/AATTY	ApoI
RCATGY	NspI
R/CCGGY	BsrFI
R/GATCY	BstYI
RGCGC/Y	HaeII
RG/CY	CviKI-1
RG/GNCCY	EcoO109I
RG/GWCCY	PpuMI
TAACATAACGGTCCTAAGGTAGCGAA(-9/-13)	I-CeuI
TAC/GTA	SnaBI
TAGGGATAACAGGGTAAT(-9/-13)	I-SceI
T/CATGA	BspHI
T/CCGGA	BspEI
TCCRAC(20/18)	MmeI
T/CGA	Taq <sup>q</sup> I
TCG/CGA	NruI
TCN/GA	Hpy188I
TC/NNGA	Hpy188III
T/CTAGA	XbaI XbaI RE-Mx®
T/GATCA	BclI
TG/CA	HpyCH4V
TGC/GCA	FspI
TGGCAAACAGCTATTATGGGTATTATGGGT(-13/-17)	PI-PspI
TGG/CCA	MscI
T/GTACA	BsrGI
T/TAA	MseI
TTAAT/TAA	PacI PacI RE-Mx®
TTATAA	PsiI
TT/CGAA	BstBI
TTT/AAA	DraI
VC/TCGAGB	PspXI
W/CCGGW	BsaWI
YAC/GTR	BsaAI
Y/GGCCR	EaeI