

## Recognition Sequences & Source for OPTIZYME™ Restriction Enzymes

Recognition Sequence	OPTIZYME™ Restriction Enzyme	Part Number	Source
↓(N) <sub>7</sub> GAAC(N) <sub>6</sub> TTC (N) <sub>12-13</sub> ↓	AloI	BP8075	E. coli
↓GATC	Sau3AI (Bsp143I)	BP8030	E. coli
A↓AGCTT	HindIII	BP8006	E. coli
A↓CCGGT	BshTI (AgeI)	BP8078	Arthrobacter luteus
A↓CGCGT	MluI	BP8021	Acinetobacter lwoffii RFL44
A↓CTAGT	SpeI (BcuI)	BP8018	E. coli
A↓GATCT	BglII	BP8014	E. coli
AG↓CT	AluI	BP8015	E. coli
AGG↓CCT	StuI (Eco147I)	BP8027	Micrococcus luteus Ng 16-122
AGT↓ACT	ScaI	BP8037	E. coli
AT↓CGAT	Clal	BP8024	Bacillus caldolyticus
AT↓TAAT	VspI (AseI)	BP8055	Bacillus globigii
ATGCA↓T	NsiI (Mph1103I)	BP8058	E. coli
C↓CATGG	NcoI	BP8017	Bacillus pumillus Sw 4-3
C↓CCGGG	Cfr9I (XmaI)	BP8081	Bacillus sphaericus RFL1236
C↓CGG	HpaII (MspI)	BP8032	Bacillus sphaericus Jo 22-024
C↓CGG	MspI (HpaII)	BP8048	Paracoccus alcaliphilus ZVK3-3
C↓CTAGG	XmaI (AvrII)	BP8082	Escherichia coli RFL91
C↓TCGAG	XhoI	BP8010	E. coli
C↓TNAG	DdeI (HpyF31)	BP8060	Bacillus subtilis 15
C↓YCGRG	AvaI (Eco88I)	BP8035	Corynebacterium species RFL6
CA↓TATG	NdeI	BP8020	E. coli
CACCTGC (N) <sub>4</sub> ↓	AarI	BP8069	E. coli
CAG↓CTG	PvuII	BP8022	Deinococcus radiophilus
CC↓CWGGG	PasI	BP8073	Enterobacter cloacae RFL136
CCC↓GGG	Smal	BP8011	E. coli
CCG↓GG	SacII (Cfr42I)	BP8023	E. coli
CG↓CG	Bsh1236I (BstUI)	BP8071	E. coli
CGAT↓CG	PvuI	BP8050	Escherichia coli RFL32
CGTCTC (N) <sub>1</sub> ↓	Esp3I (BsmBI)	BP8070	E. coli
CTGAAG (N) <sub>16</sub> ↓	Eco57I (Acul)	BP8066	Bacillus subtilis R
CTGCA↓G	PstI	BP8001	E. coli
G m6A↓TC	DpnI	BP8009	Haemophilus influenzae Rd
G↓AATTC	EcoRI	BP8003	Haemophilus influenzae Rf
G↓AATTC	EcoRI (HC)	BP8054	Kurthia species N88
G↓ANTC	HinfI	BP8051	Haemophilus parainfluenzae
G↓CGCGC	BssHII (Paul)	BP8036	E. coli
G↓CTAGC	NheI	BP8019	Klebsiella pneumoniae OK8
G↓GATCC	BamHI	BP8005	Lysobacter gummosus RFL1
G↓GTNACC	BstEII (Eco91I)	BP8038	Micrococcus luteus
G↓GWCC	AvaII (Eco47I)	BP8043	Moraxella species
G↓TAC	Csp6I (CviQI)	BP8068	E. coli
G↓TCGAC	SalI	BP8013	E. coli
G↓TGCAC	Alw44I (ApaLI)	BP8059	E. coli
GAAGAC (N) <sub>2</sub> ↓	BpiI (BbsI)	BP8072	Neisseria mucosa heidelbergensis
GAANN↓NNTTC	XmnI (PdmI)	BP8052	Nocardia otitidis-caviarum
GACGT↓C	AatII	BP8041	Moraxella phenylpyruvica RFL1103
GAG↓CTC	Ecl136II	BP8080	Pseudomonas anquilliseptica RFL1
GAGCT↓C	SacI	BP8016	Pseudomonas fluorescens biovar 126
GAT↓ATC	EcoRV (Eco32I)	BP8012	Providencia stuarti
GC↓GGCCGC	NotI	BP8004	E. coli
GCATG↓C	SphI (PaeI)	BP8029	Proteus vulgaris
GCC↓GGC	NaeI	BP8057	Proteus vulgaris
GCCNNNN↓NGGC	BglI	BP8046	Rhodopseudomonas sphaeroides
GCGAT↓CGC	SfaAI (AsiSI)	BP8076	E. coli
GCTCTTC (N) <sub>1</sub> ↓	LguI (SapI)	BP8067	Streptomyces albus G
GG↓CC	HaeIII (BsuRI)	BP8002	Bacillus species RFL143
GGGCC↓C	ApaI	BP8025	Streptomyces caespitosus

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GGTAC↓C	KpnI	BP8083	E. coli
GT↓AC	RsaI	BP8000	Serratia marcescens
GTN↓NAC	Hpy8I (MjaIV)	BP8079	Bacillus coagulans VS 29-022
GTT↓AAC	HpaI (KspAI)	BP8049	Pseudomonas aeruginosa
GTY↓RAC	HincII (HindII)	BP8034	E. coli
T↓CCNGGA	PfoI	BP8077	E. coli
T↓CGA	TaqI	BP8007	Thermus ruber RFL1
T↓CTAGA	XbaI	BP8008	Vibrio species
T↓GATCA	BclI	BP8053	Xanthomonas badrii
T↓TAA	Tru9I (MseI)	BP8064	Xanthomonas holcicola
TGG↓CCA	Ball (MscI)	BP8039	Xanthomonas maltophilia Jo 85-025
TTT↓AAA	DraI	BP8026	E. coli

### Single Letter Code

R = G or A

Y = C or T

W = A or T

N = G, A, T or C