## Restriction Enzymes from Jena Bioscience \& Stratech Enzyme finder D®1

| Enzyme | Cleavage Site $5 \rightarrow 3$ | JBS Enzyme | Enzyme | Cleavage Site $5 \rightarrow 3$ | JBS Enzyme | Enzyme | Cleavage Site $5 \rightarrow 3$ | JBS Enzyme |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aat I | AGG $\downarrow$ CCT | SseBI | BstMA I | CTGCA $\downarrow$ G | Pst I | Ncol | C $\downarrow$ CATGG | Ncol |
| Accl | GT $\downarrow$ MKAC | Accl | BstMB I | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | Nde I | CA $\downarrow$ TATG | Ndel |
| Acc III | T $\downarrow$ CCGGA | BseA I | BstN I | CC $\downarrow$ WGG | BseBI | Nde II | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I |
| Acc113I | AGTVACT | Scal | BstO I | CC $\downarrow$ WGG | BseBI | NgoM IV | G $\downarrow$ CCGGC | \{Nael\} |
| Acc65 I | G $\downarrow$ GTACC | \{Kpn I\} | BstP I | G $\downarrow$ GTNACC | BstE II | Nhel | G $\downarrow$ CTAGC | Nhel |
| Afal | GTVAC | Rsal | BstSN I | TAC $\downarrow$ GTA | SnaBI | Not I | GC $\downarrow$ GGCCGC | Not 1 |
| Afl | GฟGWCC | $\operatorname{Sin} 1$ | BstXI | CCANNNNN $\downarrow$ NTGG | BstXI | Nru I | TCG $\downarrow$ CGA | Nrul |
| Afl II | C $\downarrow$ TTAAG | MspCI | Bsu15 I | AT $\downarrow$ CGAT | BseCI | Nsp III | C $\downarrow$ YCGRG | Aval |
| Age I | A $\downarrow$ CCGGT | CspAI | BsuRI | GGฟCC | BshFI | Nsp V | TT $\downarrow$ CGAA | Asull |
| Aha III | TTT $\downarrow$ AAA | Dral | BsuTU I | AT $\downarrow$ CGAT | BseCI | Pael | GCATG $\downarrow C$ | Sphl |
| Ahll | A $\downarrow$ CTAGT | Spel | BtsCl | GGATG (2/0) | \{Fok I\} | PaeR7I | $\bigcirc \downarrow$ TCGAG | Slal |
| Ajn I | $\downarrow$ CCWGG | \{BseB I\} | CciN I | GC $\downarrow$ GGCCGC | Not I | Pall | GG $\downarrow$ CC | BshFI |
| Alul | AG $\downarrow$ CT | Alul | Cfr101 | R $\downarrow$ CCGGY | BssAI | Paul | G $\downarrow$ CGCGC | BSSH II |
| Alw44 I | G $\downarrow$ TGCAC | ApaL. I | Cfr131 | G $\downarrow$ GNCC | PspP I | Pcel | AGG $\downarrow$ CCT | SseBI |
| Ama87I | C $\downarrow$ YCGRG | Aval | Cfr42 I | CCGC $\downarrow$ GG | SgrBI | Pdil | GCC $\downarrow$ GGC | Nael |
| Apal | GGGCC $\downarrow$ C | Apal | Cfr91 | C $\downarrow$ CCGGG | \{Smal\} | PffF I | GACN $\downarrow$ NNGTC | Tth111 |
| ApaLI | G $\downarrow$ TGCAC | ApaLI | Clal | AT $\downarrow$ CGAT | BseCl | Phol | GG $\downarrow$ CC | BshFI |
| AsiA I | A $\downarrow$ CCGGT | CspAI | Cpol | CG $\downarrow$ GWCCG | Rs II | PinA I | A $\downarrow$ CCGGT | CspAI |
| Aspl | GACN $\downarrow$ NNGTC | Tth111I | Cspl | CG $\downarrow$ GWCCG | Rs III | Ple191 | CGAT $\downarrow$ CG | Pvul |
| Asp718 I | G $\downarrow$ GTACC | \{Kpnl\} | Csp45 I | TT $\downarrow$ CGAA | Asull | Psp124B I | GAGCT $\downarrow C$ | Sst 1 |
| AspS9 I | G GNCC | PspP I | Csp6I | G $\downarrow$ TAC | \{Rsal\} | Psp6I | $\downarrow$ CCWGG | \{BseB I\} |
| Asull | TT $\downarrow$ CGAA | Asull | CspAI | A $\downarrow$ CCGGT | CspAI | PspAI | C $\downarrow$ CCGGG | \{Smal\} |
| AsuNHI | G $\downarrow$ CTAGC | Nhel | Din I | GGC $\downarrow$ GCC | \{Narl\} | PspEI | G $\downarrow$ GTNACC | BstE II |
| Aval | C $\downarrow$ YCGRG | Aval | Dpn I | GA $\downarrow$ TC | Dpn I, \{Mbo I\}, \{Sau3A I\} | PspGI | $\downarrow$ CCWGG | \{BseB I\} |
| Ava II | G $\downarrow$ GWCC | $\operatorname{Sin} 1$ | Dpn II | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3AI | PspOMI | G $\downarrow$ GGCCC | \{Apal\} |
| BamHI | G $\downarrow$ GATCC | BamHI | Dral | TTT $\downarrow$ AAA | Dral | PspP I | G $\downarrow$ GNCC | PspP I |
| Ban II | GRGCY $\downarrow$ C | Ban Il | Ecl136 II | GAG $\downarrow$ CTC | \{SSt 1\} | Pst I | CTGCA $\downarrow$ G | Pst I |
| Ban III | AT $\downarrow$ CGAT | BseCl | Eco105 I | TAC $\downarrow$ GTA | Snabl | Psyl | GACN $\downarrow$ NNGTC | Tth111 |
| Bbel | GGCGC $\downarrow$ C | \{Narl\} | Eco130 I | C $\downarrow$ CWWGG | Sty 1 | Pvul | CGAT $\downarrow$ CG | Pval |
| Bbul | GCATG $\downarrow$ C | Sphl | Eco147 I | AGG $\downarrow$ CCT | SseBI | Pvull | CAG $\downarrow$ CTG | Pvull |
| BClI | T $\downarrow$ GATCA | BCll | Eco24I | GRGCY $\downarrow$ C | Ban II | Rsal | GT $\downarrow$ AC | Rsal |
| Bcol | C $\downarrow$ YCGRG | Aval | Eco32 I | GAT $\downarrow$ ATC | EcoRv | Rst II | CG $\downarrow$ GWCCG | Rst II |
| Bcul | A $\downarrow$ CTAGT | Spel | Eco47 I | G $\downarrow$ GWCC | Sin I | Rst2 I | CG $\downarrow$ GWCCG | Rs III |
| Bfr I | C $\downarrow$ TTAAG | MspCl | Ecos8 I | C $\downarrow$ YCGRG | Aval | Sacl | GAGCT $\downarrow$ C | Sst I |
| BfuCI | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | Eco91 I | G $\downarrow$ GTNACC | BstE II | Sac II | CCGC $\downarrow$ GG | SgrBI |
| Bgll | GCCNNNN $\downarrow$ NGGC | Bg/l | EcolCRI | GAG $\downarrow$ CTC | \{SSt1\} | Sall | GTCGAC | Sall |
| BgIII | A $\downarrow$ GATCT | Bg/ II | Eco065 I | G $\downarrow$ GTNACC | BstE II | Sau3AI | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I |
| Bme18I | G $\downarrow$ GWCC | Sin I | EcoRI | G $\downarrow$ AATTC | ECORI | Sau96I | G $\downarrow$ GNCC | PspP I |
| BmeT110I | CY $\downarrow$ CGRG | \{Aval\} | EcoR II | $\downarrow$ CCWGG | \{BseB I\} | Scal | AGT $\downarrow$ ACT | Scal |
| Bmt 1 | GCTAG $\downarrow$ C | \{Nhe I\} | EcoR I | G $\downarrow$ AATTC | EcoR I | Sfil | GGCCNNNN $\downarrow$ NGGCC | Sfil |
| Bpu14I | TT $\downarrow$ CGAA | Asull | EcoR V | GAT $\downarrow$ ATC | EcoR V | Sfol | GGC $\downarrow$ GCC | \{Nar 1\} |
| BpuUI | CGAT $\downarrow$ CG | Pvul | EcoT14 I | C $\downarrow$ CWWGG | Styl | Sfr274I | C $\downarrow$ TCGAG | Slal |
| Bsa29I | AT $\downarrow$ CGAT | BseCI | EcoT38 I | GRGCY $\downarrow$ C | Ban Il | Sfr3031 | CCGC $\downarrow$ GG | SgrBI |
| Bse118I | R $\downarrow$ CCGGY | BSSAI | Egel | GGC $\downarrow$ GCC | \{Nar I\} | Sful | TT $\downarrow$ CGAA | Asu II |
| BseAI | T $\downarrow$ CCGGA | BseAI | Ehel | GGC $\downarrow$ GCC | \{Nar 1\} | SgrBI | CCGC $\downarrow$ GG | SgrBI |
| BseBI | CC $\downarrow$ WGG | BseBI | Erh I | C $\downarrow$ CWWGG | Styl | Sin 1 | G $\downarrow$ GWCC | $\operatorname{Sin} 1$ |
| BseCl | AT $\downarrow$ CGAT | BseCl | FauNDI | CA $\downarrow$ TATG | Ndel | Sla 1 | C $\downarrow$ TCGAG | Slal |
| BseGI | GGATG (2/0) | \{Fok I\} | Fbal | T $\downarrow$ GATCA | BCll | Smal | CCC $\downarrow$ GGG | Smal |
| BseP I | G $\downarrow$ CGCGC | BssH II | Fbll | GT $\downarrow$ MKAC | Accl | SnaBI | TAC $\downarrow$ GTA | Snabl |
| BshFI | GG $\downarrow$ CC | BshFI | FokI | GGATG (9/13) | Fokl | SpaH I | GCATG $\downarrow$ C | Sphl |
| BshTI | A $\downarrow$ CCGGT | CSPAI | Friol | GRGCY $\downarrow$ C | Ban Il | Spel | A $\downarrow$ CTAGT | Spel |
| BsiHKCI | C $\downarrow$ YCGRG | Aval | Fun II | G $\downarrow$ AATTC | ECORI | Sphl | GCATG $\downarrow C$ | Sphl |
| Bsis I | C $\downarrow$ CGG | Bsis I | Hae III | GG $\downarrow$ CC | BshFI | SseBI | AGG $\downarrow$ CCT | SseBI |
| Bsobl | C $\downarrow$ YCGRG | Aval | Hap II | $C \downarrow$ CGG | Bsis I | Sspl | AAT $\downarrow$ ATT | Sspl |
| Bsp106I | AT $\downarrow$ CGAT | BseCl | Hinc II | GTY $\downarrow$ RAC | Hinc II | Sst I | GAGCT $\downarrow C$ | Sst 1 |
| Bsp119I | TT $\downarrow$ CGAA | Asull | Hind II | GTY $\downarrow$ RAC | Hinc II | Stul | AGG $\downarrow$ CCT | SseBI |
| Bsp120I | G $\downarrow$ GGCCC | \{Apal\} | Hind III | A $\downarrow$ AGCTT | Hind III | Sty I | C $\downarrow$ CWWGG | Styl |
| Bsp13I | T $\downarrow$ CCGGA | BseA I | Hinf I | G $\downarrow$ ANTC | Hinf I | TaqI | T $\downarrow$ CGA | Taq I |
| Bsp143 I | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | Hpal | GTT $\downarrow$ AAC | Hpal | Tell | GACN $\downarrow$ NNGTC | Tth111 |
| Bsp19I | C $\downarrow$ CATGG | Ncol | Hpall | $C \downarrow$ CGG | Bsis I | Tlil | $C \downarrow$ TCGAG | Slal |
| Bsp68I | TCG $\downarrow$ CGA | Nrul | Kas I | G $\downarrow$ GCGCC | \{Nar I\} | Tth111I | GACN $\downarrow$ NNGTC | Tth1111 |
| BspAN I | GGฟCC | BshFI | Kpn I | GGTAC $\downarrow$ C | Kpnl | Vha464I | $C \downarrow$ TTAAG | MspCl |
| BspCI | CGAT $\downarrow$ CG | Pvul | Kpn2 I | T $\downarrow$ CCGGA | BseAI | VpaK11BI | GปGWCC | Sin 1 |
| BspDI | AT $\downarrow$ CGAT | BseCI | Kspl | CCGC $\downarrow$ GG | SgrBI | Xbal | T $\downarrow$ CTAGA | Xbal |
| BspEI | T $\downarrow$ CCGGA | BseA I | Ksp22 I | T $\downarrow$ GATCA | BCll | Xhol | $C \downarrow$ TCGAG | Sla 1 |
| BspTI | C $\downarrow$ TTAAG | MspCl | KspAI | GTT $\downarrow$ AAC | Hpal | Xmal | C $\downarrow$ CCGGG | \{Smal\} |
| BspT104I | TT $\downarrow$ CGAA | Asull | Kzo9 I | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | XmaCI | C $\downarrow$ CCGGG | \{Smal\} |
| BspXI | AT $\downarrow$ CGAT | BseCI | Mbol | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | Xmil | GT $\downarrow$ MKAC | Accl |
| BsrFI | R $\downarrow$ CCGGY | BSSAI | Mbo II | GAAGA (8/7) | Mboll | Zhol | AT $\downarrow$ CGAT | BseCl |
| BssAI | R $\downarrow$ CCGGY | BSSAI | Mlu I | A $\downarrow$ CGCGT | Mlul | Zrm I | AGT $\downarrow$ ACT | Scal |
| BssH I | C $\downarrow$ TCGAG | Slal | Mly113 I | GG $\downarrow$ CGCC | Narl | Enzyme available from Jena Bioscience <br> Isoschizomer available from Jena Bioscience |  |  |
| BssH II | G $\downarrow$ CGCGC | BssH II | Mnll | CCTC (7/6) | Mnll |  |  | Neoschizomer availabl from Jena Bioscience |
| BssT1 I | C $\downarrow$ CWWGG | Sty 1 | Mrol | T $\downarrow$ CCGGA | BseAI |  |  |  |
| Bst2U I | CC $\downarrow$ WGG | BseBI | MroN I | G $\downarrow$ CCGGC | \{Nael\} |  |  |  |
| Bst98 I | C $\downarrow$ TTAAG | MspCl | Mspl | $\bigcirc \downarrow$ CGG | Bsis I | - Single Letter Code: $R=A$ or $G, Y=C$ or $T, M=A$ or $C, K=G$ or $T, S=C$ or $G$, $W=A$ or $T, H=A$ or $C$ or $T, B=C$ or $G$ or $T, V=A$ or $C o r G, D=A$ or $G$ or T, |  |  |
| BstBI | TT $\downarrow$ CGAA | Asull | MspCl | C $\downarrow$ TTAAG | MspCl | $N=A$ or $C$ or $G$ or $T$- Isoschizomers have same recoonnition sequence and cutting pattern. |  |  |
| BstE II | G $\downarrow$ GTNACC | BstE II | Mval | CC $\downarrow$ WGG | BseBI |  |  |  |
| BstEN II | $\downarrow$ GATC | \{Dpn I\}, Mbo I, Sau3A I | Mvr I | CGAT $\downarrow$ CG | Pvul | - Neoschizomers (same recognition sequence but different cutting pattern) are |  |  |
| BstF5 I | GGATG (2/0) | \{Fokl\} | Nael | GCC $\downarrow$ GGC | Nael |  |  |  |
| BstKTI | GAT $\downarrow$ C | \{Dpn 1\}, \{Mbo \|\}, \{Sau3A 1\} | Nar I | GG $\downarrow$ CGCC | Nar 1 |  |  | - |

