

5' tggcgaatgggacgcgccctgtagcggcgcattaagcgcggcgggtgtggtggttacgcgagcgtgacc
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 70
3' accgcttaccctgcgcgggacatcgccgctaattcgcgccgccacaccaccaatgcgcgctcgcaactgg
o

5' gctacacttgccagcgccctagcgcgcctcctttcgctttctcccttcctttctcggccagtttcgccc
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 140
3' cgatgtgaacgggtcgcgggatcgcgggcgaggaaagcgaagaaggaaggaaagagcgggtgcaagcggc
o

5' gctttccccgtcaagctctaaatcgggggctccctttagggttccgatttagtgctttacggcacctcga
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 210
3' cgaaaggggagctcgagatttagcccccaggggaaatcccaaggctaaatcacgaaatgccgtggagct
o

Dralll
|
5' ccccaaaaaacttgattagggtgatgggtcacgtagtgggcatcgccctgatagacgggtttttcgccct
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 280
3' ggggttttttgaaactaatccactaccaagtgcataccccggtagcgggactatctgccaaaagcggga
o

Aol'
| Aol
|
5' ttgacggtggagtccacgcttcttaataagtggactcttgttccaaactggaacaacactcaaccctatct
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 350
3' aactgcaacctcaggtgcaagaaattatcacctgagaacaagggttgaccttgttgtgagttgggataga
o

Psil
|
5' cggctctattcttttgatttataagggattttgccgatttcggcctattggttaaaaaatgagctgattta
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 420
3' gccagataagaaaactaaatatccctaaaacggctaaagccggataaccaatttttactcgactaaat
o

5' acaaaaatttaacgcaattttaacaaaatattaacgcttacaatttaggtggcacttttcggggaaatg
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 490
3' tgtttttaaattgcgcttaaaattgttttataattgcaatgttaaatccaccgtgaaaagccctttac
o

5' tgcgcggaaccctatattgtttatttttctaaatacattcaaatatgtatccgctcatgagacaataacc
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 560
3' acgcgcttggggataaacaaaataaaaagatttatgtaagtttatacataggcgagtactctgttattgg
o

5' ctgataaatgcttcaataatattgaaaaaggaagagtatgagattcaacatttcggtgctgcccttatt
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 630
3' gactatttacgaagtattataactttttccttctcatactcataagttgtaaggcacagcgggaataa
o

Ap

o

5' cccttttttgccgcatthttgccttctgthtttgctcaccagaaacgctggtgaaagtaaaagatgctg
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 700
3' gggaaaaaacgccgtaaaaacggaaggacaaaaacgagtggtctttgcgaccactttcattttctacgac
Ap

o

5' aagatcagttgggtgcacgagtgggttacatcgaactggatctcaacagcggtaagatccttgagagttt
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 770
3' ttctagtcacccacgtgctcacccaatgtagcttgacctagagttgtcgccattctaggaactctcaa
Ap

o

5' tcgccccgaagaacgttttccaatgatgagcacttttaagttctgctatgtggcgcggtattatcccgt
o ++++++
3' agcggggcttcttgcaaaaggttactactcgtgaaaatttcaagacgatacacccgcgcataatagggca
o

Ap

840

5' attgacgccgggcaagagcaactcggctcgcgcatacactattctcagaatgacttggttgagtactcac
o ++++++
3' taactgcccggccttctcgttgagccagcggcgtatgtgataagagtccttactgaaccaactcatgagtg
o

Ap

910

5' cagtccagaaaagcatcttacggatggcatgacagtaagagaattatgcagtgctgccataaccatgag
o ++++++
3' gtcagtgcttttcgtagaatgcctaccgtactgtcattctcttaatacgtcacgacgggtattggtactc
o

Ap

980

PvuI

5' tgataaactgcggccaacttacttctgacaacgatcggaggaccgaaggagctaaccgcttttttgca
o ++++++
3' actattgtgacgccggttgaatgaagactggtgctagcctcctggcttctcgcattggcgaaaaaacgtg
o

Ap

1050

5' aacatgggggatcatgtaactcgccttgatcggtgggaaccggagctgaatgaagccataccaaacgacg
o ++++++
3' ttgtacccctagtagacattgagcggaaactagcaacccttggcctcgacttacttcgggtatggtttgctgc
o

Ap

1120

PstI

5' agcgtgacaccacgatgcctgcagcaatggcaacaacgttgcgcaaactattaactggcgaactacttac
o ++++++
3' tcgcactgtggtgctacggacgctcgttaccggtggtgcaacgcggttgataattgaccgcttgatgaatg
o

Ap

1190

5' tctagcttcccggcaacaattaatagactggatggaggcggataaagttgcaggaccacttctgcgctcg
o ++++++
3' agatcgaagggcgttgtaattatctgacctacctccgctatattcaacgtcctggtgaagacgcgagc
o

Ap

1260

Bsal

5' gcccttccggctggctggtttattgctgataaatctggagccggtgagcgtgggtctcgcggtatcattg
o ++++++
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o

Ap

1330

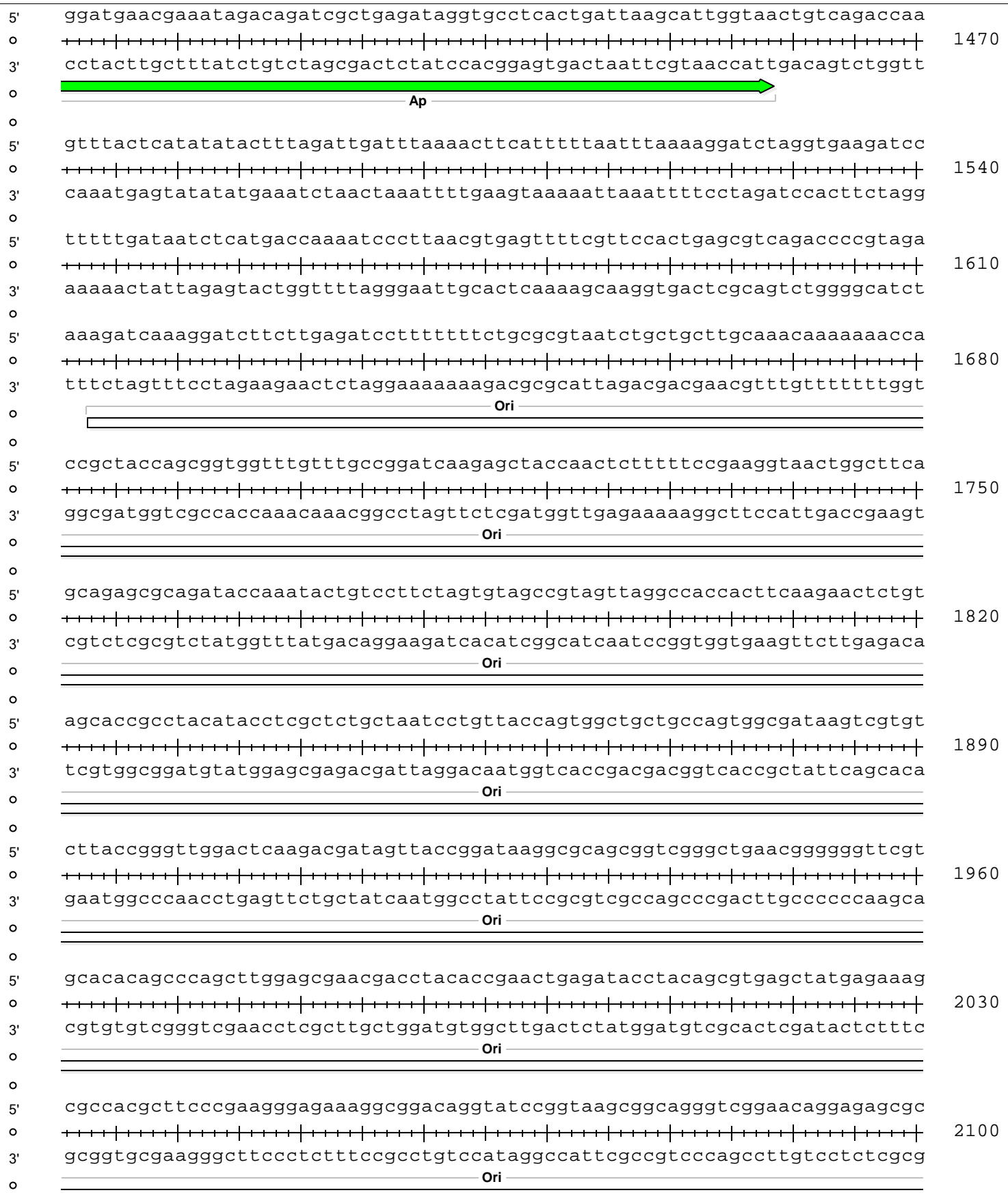
AhdI

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o ++++++
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o

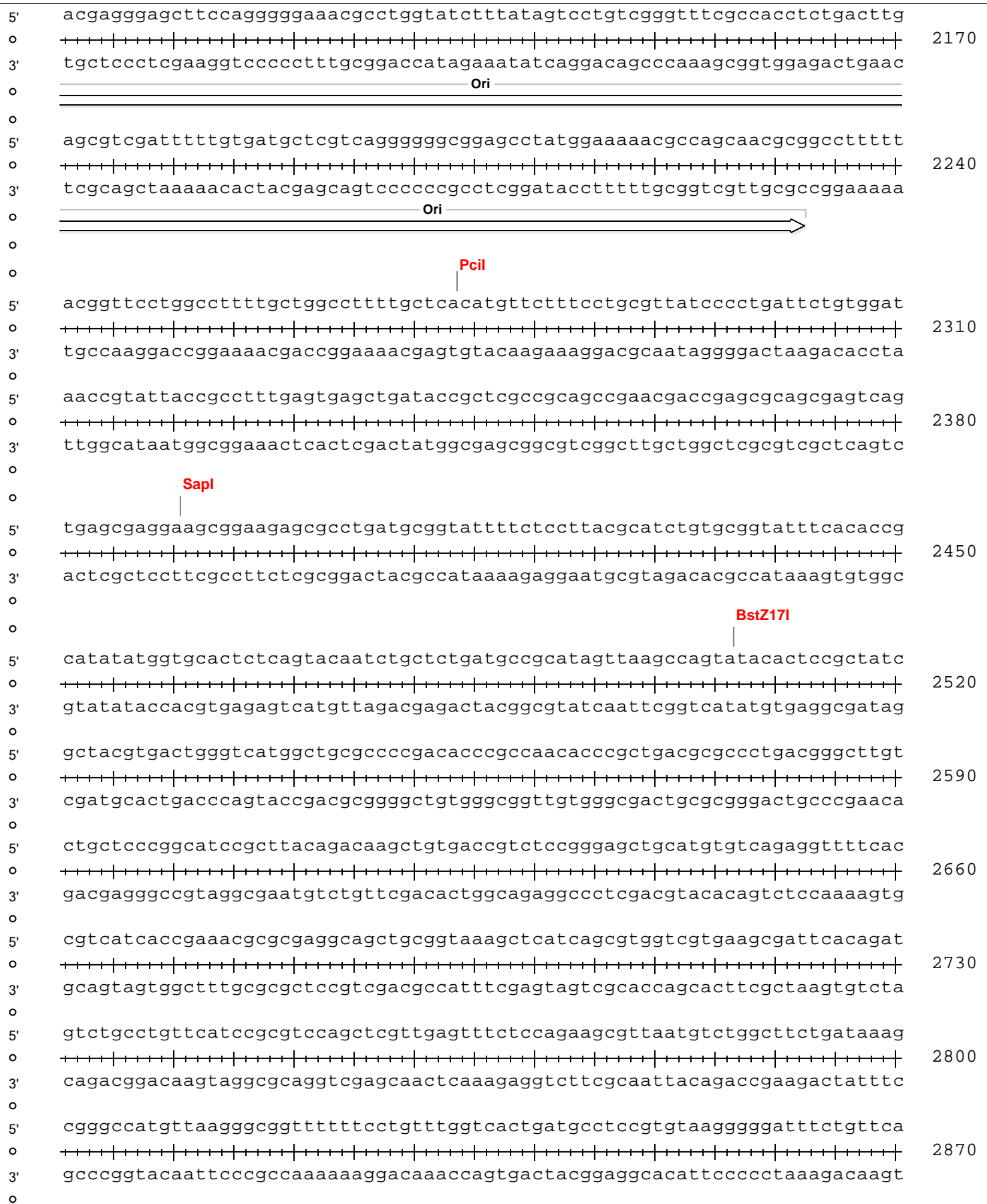
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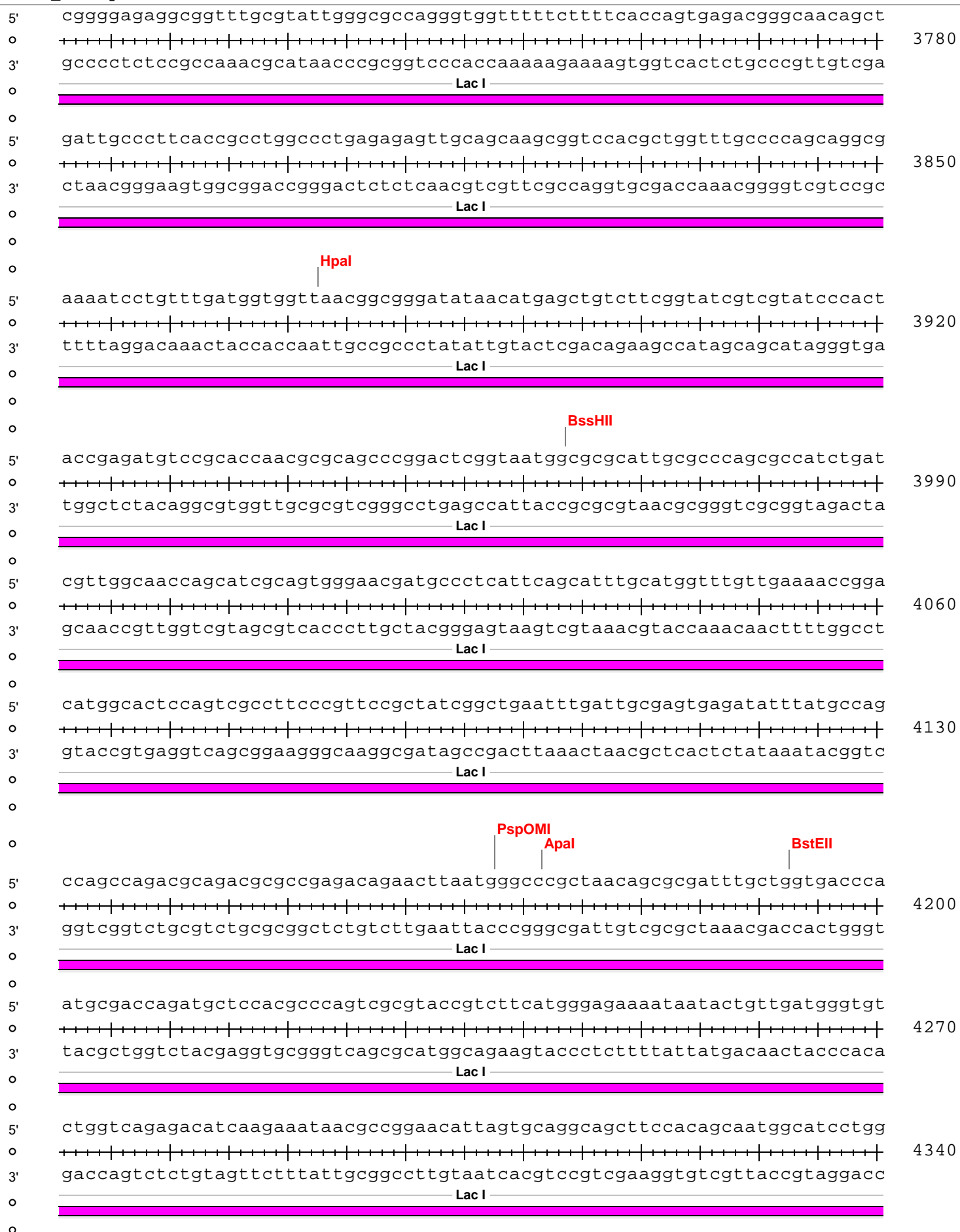
BGH89_B01b-pET32-DEST



BGH89_B01b-pET32-DEST



BGH89_B01b-pET32-DEST



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0      |           BclI           |           MluI           |
5'   tcatccagcggatagttaatgatcagcccactgacgcggttgcgcgagaagattgtgcaccgcccgttttac
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   agtaggtcgcctatcaattactagtcgggtgactgcgcaacgcgctcttctaacacgtggcggcgaaatg
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          Lac I
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   aggcttcgacgcccgttcggttctaccatcgacaccaccacgctggcaccagttgatcggcgcgagattt
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   tccgaagctgcggcgaagcaagatggttagctgtgggtggtgacaccgtgggtcaactagcccgcctctaaa
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          Lac I
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   aatcgccgcgacaatttgcgacggcgcgctgcagggccagactggaggtggcaacgccaatcagcaacgac
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   ttagcggcgcctgttaaacgctgcccgcgcacgctcccggctgacctccaccggttgcggttagtcggttgcg
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          Lac I
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   tgtttgcccgccagtgtgttgccacgcggttggaatgtaattcagctccgccatcgcccgttccactt
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   acaaacgggcgggtcaacaacacgggtgcgccaacccttacattaagtcgaggcggtagcggcgaaggtgaa
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          Lac I
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   tttcccgcgttttcgcagaaacgtggctggcctgggttcaccacgcgggaaacggctctgataagagacacc
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   aaagggcgcaaaagcgtctttgcaccgaccggaccaagtgggtgcgccctttgccagactattctctgtgg
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          BstAPI
0   |
5'   ggcatactctgcgacatcgtataacgttactggtttcacattcaccaccctgaattgactctcttccggg
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   ccgatatgagacgctgtagcatattgcaatgaccaaagtgtaagtgggacttaactgagagaaggccc
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   cgctatcatgccataccgcgaaaggttttgcgccattcgatgggtgtccgggatctcgacgctctccctta
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   gcgatagtacggatggcgctttccaaaacgcggtaagctaccacaggccctagagctgagaggggaat
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
          EcoNI
0   |
5'   tgcgactcctgcattaggaagcagcccagtagtaggttgaggccgttgagcaccgcccgcgcaaggaatg
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   acgctgaggacgtaatccttcgctcgggtcatcatccaactccggcaactcgtggcggcggcgcttccttac
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   gtgcatgcaaggagatggcgcccaacagtcctccggccacggggcctgccaccatacccacgcccgaaca
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   cacgtacgttcctctaccgcgggttgtcagggggccggtgccccggacgggtggtatgggtgaggctttgt
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
5'   agcgtcatgagcccgaagtggcgagcccgatcttccccatcgggtgatgtcggcgatataggcgcagca
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'   tcgcgagtactcgggcttcaccgctcgggctagaagggtagccactacagccgctatatccgcggctcgt
0   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

o
 5' accgcacctgtggcgccgggtgatgccggccacgatgCGTCCGGCGTAGAGGATCGAGATCGATCTCGATC
 o
 3' tggcgtggacaccgCGGCCACTACGGCCGGTGCTACGCAGGCCGCATCTCCTAGCTCTAGCTAGAGCTAG

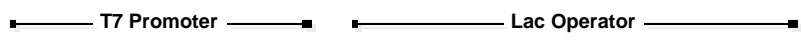
5110

SgrAI

XbaI

o
 5' ccgcgaaattaatacGACTCACTATAGGGGAATTGTGAGCGGATAACAATTCCTCTAGAAATAATTTT
 o
 3' ggCGCTTAAATTATGCTGAGTGATATCCCCTTAACACTCGCCTATTGTTAAGGGGAGATCTTTATTAATAA

5180



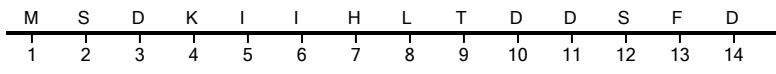
BamHI

BamHI'

o
 5' gTTTAACTTTAAGAAGGAGATACATATGAGCGATAAAATTATTCACCTGACTGACGACAGTTTGTACA
 o
 3' CAAATTGAAATTCCTCCTATATGTATACTCGCTATTTAATAAGTGGACTGACTGCTGTCAAAACTGT

5250

Trx Tag

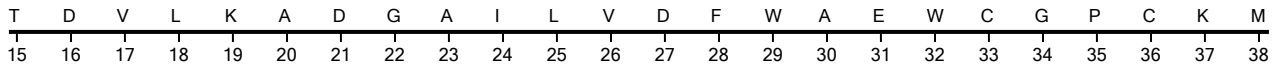


RsrII

o
 5' CGGATGTACTCAAAGCGGACGGGGCGATCCTCGTCGATTTCTGGGCAGAGTGGTGCGGTCCGTGCAAAAT
 o
 3' GCCTACATGAGTTTCGCCTGCCCGCTAGGAGCAGCTAAAGACCCGTCTCACCACGCCAGGCAGTTTTA

5320

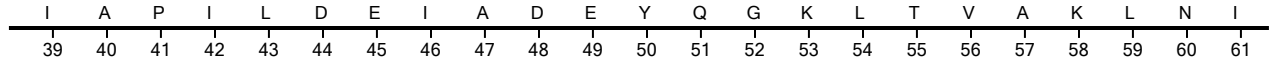
Trx Tag



o
 5' gatCGCCCCGATTCTGGATGAAATCGCTGACGAATATCAGGGCAAACCTGACCGTTGCAAAACTGAACATC
 o
 3' CTAGCGGGGCTAAGACCTACTTTAGCGACTGCTTATAGTCCCGTTTGACTGGCAACGTTTGTACTTGTAG

5390

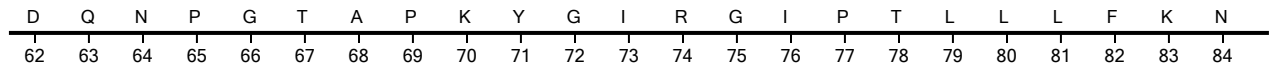
Trx Tag



o
 5' gatCAAACCCTGGCACTGCGCCGAAATATGGCATCCGTGGTATCCCGACTCTGCTGCTGTTCAAAAACG
 o
 3' CTAGTTTGGGACCGTGACGCGGCTTTATACCCTAGGCACCATAGGGCTGAGACGACGACAAGTTTTTGC

5460

Trx Tag



BGH89_B01b-pET32-DEST

```

5'  gtgaagtggcggcaaccaaaagtgggtgcaactgtctaaagggtcagttgaaagagttcctcgacgctaacct
   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'  cacttcaccgcccgttggtttcacccacgtgacagatttccagtcaactttctcaaggagctgcgattgga

```

Trx Tag

G E V A A T K V G A L S K G Q L K E F L D A N L
 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108

MscI

```

5'  ggccggttctggttctggccatatgcaccatcatcatcattcttctggtctggtgccacgcggttct
   +-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'  ccggccaagaccaagaccgggtatacgtggtagtagtagtaagaagaccagaccacggtgcgccaaga

```

A G S G S G H M H H H H H S S G L V P R G S
 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131

His6-tag

Thrombin

BstBI

BglII

Acc65I

KpnI

```

5'  ggtatgaaagaaaccgctgctgctaaattcgaacgccagcacatggacagcccagatctgggtaccgacg
   +-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'  ccatactttcttggcgacgacgatttaagcttgcggtcgtgtacctgtcgggtctagacctatgggtgc

```

En...e

G M K E T A A A K F E R Q H M D S P D L G T D
 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154

NcoI

```

5'  acgacgacaaggccatggcgatATCAACAAGTTTGTACAAAAAAGCAGGCTctgaaaacttgtaactttca
   +-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'  tgctgctgttccggtaaccgctaTAGTTGTTCAAACATGTTTTTTCGTCCGAgacttttgaacatgaaagt

```

Enterokinase

attB1

TEV site

BGH89_B01b-pDONR221

D D D K A M A I S T S L Y K K A G S E N L Y F Q
 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178

```

5'  aggcCAACGCAATGTAGAAACAGGCCCTCCTGTATTAAAAGAAATGTGCCAAAGATTATTTCCCGGCAT
   +-----+-----+-----+-----+-----+-----+-----+-----+-----+
3'  tccgGTTGCGTTACATCTTTGTCCGGGAGGACATAATTTCTTTACACGGTTTCTAATAAAGGGGCCGTA

```



BGH89_B01b

BGH89_B01b-pDONR221

G Q R N V E T G P P V L K E M C Q R L F P R H
 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201

BGH89_B01b-pET32-DEST

5' GCCCAGTCGTTTCTATTTCGAGTTACTGACAGATTCTATTGATACAGACCGTTTTATACTGGAATCGAGTC
 3' CGGGTCAGCAAAGATAAGCTCAATGACTGTCTAAGATAACTATGTCTGGCAAAATATGACCTTAGCTCAG

5880

————— BGH89_B01b —————

————— BGH89_B01b-pDONR221 —————

A Q S F L F E L L T D S I D T D R F I L E S S
 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224

5' AAGGGAAAATACGGATAAAAGGAAACAATCGTAACTCATTGGCTGCCGTTTGAATCATTATCTGAAAAA
 3' TTCCCTTTTATGCCTATTTTCTTTGTTAGCATTGAGTAACCGACGGCCAAACTTAGTAATAGACTTTTT

5950

————— BGH89_B01b —————

————— BGH89_B01b-pDONR221 —————

Q G K I R I K G N N R N S L A A G L N H Y L K N
 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248

5' CTACTGTCATACCCATGTTTCTGGTATGCCTCAGAGACAGTGGAAATGCCTGATGTACTACCGGAGATA
 3' GATGACAGTATGGGTACAAAGACCATAACGGAGTCTCTGTACCTTTACGGACTACATGATGGCCTCTAT

6020

————— BGH89_B01b —————

————— BGH89_B01b-pDONR221 —————

Y C H T H V S W Y A S E T V E M P D V L P E I
 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271

BbvCI

5' CCTCAGCCAGTATATATCCGTTCCAAATGTGACAATCGTTTTTTTCTCAACTATTGTACATTCGGTTATA
 3' GGAGTCGGTCATATATAGGCAAGTTTACTGTTAGCAAAAAAGAGTTGATAACATGTAAGCCAATAT

6090

————— BGH89_B01b —————

————— BGH89_B01b-pDONR221 —————

P Q P V Y I R S K C D N R F F L N Y C T F G Y
 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294

5' CTATGCCCTATTGAAAATGGCAGGACTGGGAACGACTGATAGACTGGATGGCATTAAACGGAGTCACCAT
 3' GATACGGGATAACCTTTACCGTCCTGACCCTTGCTGACTATCTGACCTACCGTAATTTGCCTCAGTGGTA

6160

————— BGH89_B01b —————

————— BGH89_B01b-pDONR221 —————

T M P Y W K W Q D W E R L I D W M A L N G V T M
 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318

BGH89_B01b-pET32-DEST

5' GCCTCTTGCTATTACCGGACAAGAATCCATTTGGTACAAAGTATGGACAGACATGGGTTTGAGCGACGAA
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CGGAGAACGATAATGGCCTGTTCTTAGGTAAACCATGTTTCATACCTGTCTGTACCCAAACTCGCTGCTT

6230

-----BGH89_B01b-----

-----BGH89_B01b-pDONR221-----

P L A I T G Q E S I W Y K V W T D M G L S D E
 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341

5' CAGGTTTCGCTCATACTTTACAGGGCCAGCCCATCTTCCCTGGCATCGGATGTCCAATGTTCGATTTCTGGC
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' GTCCAAGCGAGTATGAAATGTCCCGGTCTGGGTAGAAAGGACCGTAGCCTACAGGTTACAGCTAAAGACCG

6300

-----BGH89_B01b-----

-----BGH89_B01b-pDONR221-----

Q V R S Y F T G P A H L P W H R M S N V D F W
 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364

5' AAAGTCCACTACCTCAATCCTGGCTAAAGGATCAGGAGGAATTACAAAACGTATTCTCGAAAGAGAACG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TTTCAGGTGATGGAGTTAGGACCGATTTCTTAGTCTCCTTAATGTTTTTGCATAAGAGCTTTCTCTTGC

6370

-----BGH89_B01b-----

-----BGH89_B01b-pDONR221-----

Q S P L P Q S W L K D Q E E L Q K R I L E R E R
 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388

5' TGAGTTTGATATGACTCCTGTATTACCAGCATTGCGCGTCATGTACCAGCCGAATTAATAAACAATTTAT
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' ACTCAAACCTATACTGAGGACATAATGGTCGTAACCGCCAGTACATGGTTCGGCTTAATTTTTGTTAAATA

6440

-----BGH89_B01b-----

-----BGH89_B01b-pDONR221-----

E F D M T P V L P A F A G H V P A E L K T I Y
 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411

BsmI

5' CCGAATGCAAAAATCTATCAGATGAGTCAGTGGGGTGGCTTCGATGAAAAATACCGCAGTCATTTTATTG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' GGCTTACGTTTTTAGATAGTCTACTCAGTCACCCACCGAAGCTACTTTTTATGGCGTCAGTAAAATAAC

6510

-----BGH89_B01b-----

-----BGH89_B01b-pDONR221-----

P N A K I Y Q M S Q W G G F D E K Y R S H F I
 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434

BGH89_B01b-pET32-DEST

5' ATCCGATGGACTCATTATACTCAATCATTCAGCGCCGTTTTTCTGGAGGAACAAACCAAAGTATATGGTAC
 ++++++
 3' TAGGCTACCTGAGTAATATGAGTTAGTAAGTCGCGGCAAAGACCTCCTTGTTTGGTTTTCATATAACCATG

6580

_____ **BGH89_B01b** __________ **BGH89_B01b-pDONR221** _____

D P M D S L Y S I I Q R R F L E E Q T K V Y G T
 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458

5' TGACCATATTTATGGAATCGATCCTTTCAATGAAGTCGACTCTCCTGACTGGAGCGAGGATTTTTTATGCC
 ++++++
 3' ACTGGTATAAATACCTTAGCTAGGAAAGTTACTTCAGCTGAGAGGACTGACCTCGCTCCTAAAAAATCGG

6650

_____ **BGH89_B01b** __________ **BGH89_B01b-pDONR221** _____

D H I Y G I D P F N E V D S P D W S E D F L A
 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481

5' AATGTTTCAAGCAAGATTTACGAGTCGATTCATCAGGTAGACTCAGCAGCCCAATGGTTACAAATGACCT
 ++++++
 3' TTACAAAGTTCGTTCTAAATGCTCAGCTAAGTAGTCCATCTGAGTCGTCGGGTACCAATGTTTACTGGA

6720

_____ **BGH89_B01b** __________ **BGH89_B01b-pDONR221** _____

N V S S K I Y E S I H Q V D S A A Q W L Q M T
 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504

5' GGATGTTCTTCTATGACAAAAAGAAATGGACTCAACCCCGTATCCGTTCTTTCTAAAAGCAGTACCGGA
 ++++++
 3' CCTACAAGAAGATACTGTTTTTCTTTACCTGAGTTGGGCGATAGGCAAGGAAAGATTTTCGTTCATGGCCT

6790

_____ **BGH89_B01b** __________ **BGH89_B01b-pDONR221** _____

W M F F Y D K K K W T Q P R I R S F L K A V P D
 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528

5' TAACAACTGATATTACTCGATTACTATTGCGATCATAACAGAAATCTGGCGAAATACTGAAAAATATTAC
 ++++++
 3' ATTGTTTACTATAATGAGCTAATGATAACGCTAGTATGTCTTTAGACCGCTTTATGACTTTTTTATAATG

6860

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N K L I L L D Y Y C D H T E I W R N T E K Y Y
 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551

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5' GGAATCCCTATATTTGGTGTATCTGGGTAATTTTGGCGGCAATACGATGATAGCAGGCAATCTGAATG
 3' CCCTTAGGGATATAAACACCAATAGACCCATTA AACCGCCGTTATGCTACTATCGTCCGTTAGACTTAC

6930

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G N P Y I W C Y L G N F G G N T M I A G N L N
 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574

5' ATATTGATTTCAAGATTAAACGACTCTTCAAGGAGGGAGGAGACAATGTCTATGGCTTGGGAGCAACTCT
 3' TATAACTAAAGTTCTAATTTGCTGAGAAGTTCCTCCCTCCTCTGTTACAGATACCGAACCCCTCGTTGAGA

7000

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D I D F K I K R L F K E G G D N V Y G L G A T L
 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598

5' TGAAGGCTTTGATGTAAACCTCTTATGTACGAATTTGTTTTTGACCAGGCATGGGATTATCCTGTCACT
 3' ACTTCCGAAACTACATTTGGGAGAATACATGCTTAAACAAAACACTGGTCCGTACCCTAATAGGACAGTGA

7070

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E G F D V N P L M Y E F V F D Q A W D Y P V T
 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621

5' ACCGACCAATGGATAACCAACTGGTCCATGTGCAGAGGAGGAAATCAGGATGCCAATATCATCAAAGCGT
 3' TGGCTGGTTACCTATTGGTTGACCAGGTACACGTCTCCTCCTTTAGTCCTACGGTTATAGTAGTTTCGCA

7140

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T D Q W I T N W S M C R G G N Q D A N I I K A
 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644

5' GGAGAGCCTTGCATCAGAAAATTTATACCGAACATGCCACATGCGGCCAATCGGTATTAATGAACGCACG
 3' CCTCTCGGAACGTAGTCTTTTAAATATGGCTTGTACGGTGTACGCCGGTTAGCCATAATTACTTGCCTGC

7210

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W R A L H Q K I Y T E H A T C G Q S V L M N A R
 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668

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5' CCCCAGACTAACGGGAAGCTAAAAGTTGGAATACAAACCCCGGCATACATTACGCAAATAACGACTTATGG
 7280
 3' GGGGTCTGATTGCCCTTGATTTTCAACCTTATGTTTGGGGCCGTATGTAATGCGTTTATTGCTGAATACC

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P R L T G T K S W N T N P G I H Y A N N D L W
 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691

5' CAAATATGGAAAGAGCTACTAAAAGCCCGGAACATCAACAATAGTGATTTTCGCTTTGACGTAATCAATA
 7350
 3' GTTTATACCTTTCTCGATGATTTTTCGGCCTTGTAGTTGTTATCACTAAAAGCGAAACTGCATTAGTTAT

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Q I W K E L L K A R N I N N S D F R F D V I N
 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714

5' TCGGAAGACAAGTACTAGGAACTTGTTCCTCGAATATAGAGATCAGTTTACCGCTTGCTATAACCGGAA
 7420
 3' AGCCTTCTGTTTCATGATCCTTTGAACAAGAGGCTTATATCTCTAGTCAAATGGCGAACGATATTGGCCTT

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I G R Q V L G N L F S E Y R D Q F T A C Y N R K
 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738

5' AGATAACAACAGGCATGAGAGAATGGAGTACCCGTATGGACAACCTCTTGCTTGACGTAGACCGCCTCCTT
 7490
 3' TCTATGTTGTCCGTACTCTCTTACCTCATGGGCATACCTGTTGGAGAACGAACTGCATCTGGCGGAGGAA

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D T T G M R E W S T R M D N L L L D V D R L L
 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761

5' TCCTGTGACGCGACTCTATCCATCGGGAAATGGTTACAAGACGCCAGAACTGTGGTGAACCGTGTCGG
 7560
 3' AGGACACTGCGCTGAGATAGGTAGCCCTTACCAATGTTCTGCGGTCTTTGACACCACGTTGGCACAGCC

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S C D A T L S I G K W L Q D A R N C G A T V S
 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784

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5' AAAAGGATTACTATGAAGAAAATGCACGCTGTATCCTGACCGTATGGGGGCAACAGGACACCCAAGTAA
 0
 3' TTTTCCTAATGATACTTCTTTTACGTGCGACATAGGACTGGCATAACCCCGTTGTCTGTGGGTTGACTT

7630

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E K D Y Y E E N A R C I L T V W G Q Q D T Q L N
 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808

5' TGA CTATGCCAATCGAGGCTGGGGCGGACTTACCCGAAGCTTCTACCGGGAACGTTGGAAACGTTTCACA
 0
 3' ACTGATACGGTTAGCTCCGACCCCGCTGAATGGGCTTCGAAGATGGCCCTTGCAACCTTGCAAAGTGT

7700

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D Y A N R G W G G L T R S F Y R E R W K R F T
 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831

5' GACGGAGTCATCGCTGCTGTTTCGGAAGATAAACCTTTTGACGAAGACAAATTCACCAGGACATTACGC
 0
 3' CTGCCTCAGTAGCGACGACAAAGCCTTCTATTTGGAAAAGTCTTCTGTTAAGGTGGTCTGTAAATGCG

7770

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D G V I A A V S E D K P F D E D K F H Q D I T
 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854

5' AATTTGAATACA ACTGGACATTACAGAAAGACTCTTTCCTATTGTTTCAGAGGAAGACCCGATTCAAAT
 0
 3' TTAAACTTATGTTGACCTGTAATGTCTTCTGAGAAAGGGATAACAAAGTCTCCTTCTGGGCTAAGTTTA

7840

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Q F E Y N W T L Q K D S F P I V S E E D P I Q I
 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878

SnaBI

5' AGCAGACAGTCTTATCTTAAAATACGATACGTACTTTACCAAAGCACAATAGGACCCAGCTTCTTGATC
 0
 3' TCGTCTGTCAGAAATAGAATTTTATGCTATGCATGAAATGGTTTTCGTGTTATCCTGGGTTCGAAAGAACATG

7910

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A D S L I L K Y D T Y F T K A Q .
 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895

