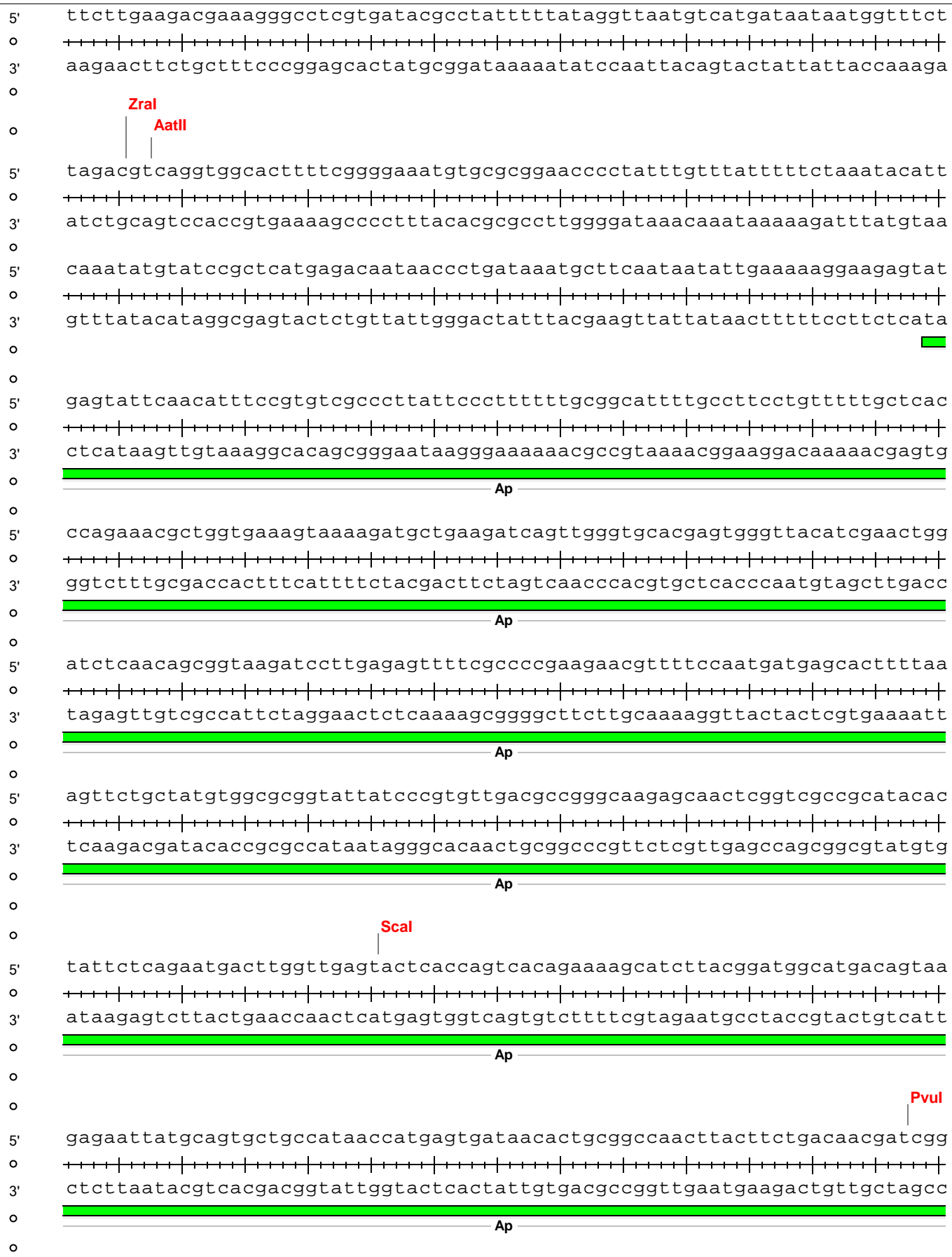


BGH02_B01a-pET16-DEST



BGH02_B01a-pET16-DEST

5' cgtaatctgctgcttgcaaacaaaaaaaccaccgctaccagcgggtggtttggttgccggatcaagagcta
 1330
 3' gcattagacgacgaacgtttgttttttggggcgatggtcgccaccaaacaaacggcctagttctcgat
 Ori

5' ccaactcttttccgaaggtaactggcttcagcagagcgcagataccaaatactgtccttctagtgtagc
 1400
 3' ggttgagaaaaaggcttccattgaccgaagtctgtctcgctctatggtttatgacaggaagatcacatcg
 Ori

5' cgtagttaggccaccacttcaagaactctgtagcaccgcctacatacctcgctctgctaactctgttacc
 1470
 3' gcatcaatccgggtggtgaagtcttgagacatcgtggcggatgtatggagcgcgagacgattaggacaatgg
 Ori

5' agtggctgctgccagtggcgataagtctgtgcttaccgggttgactcaagacgatagttaccggataag
 1540
 3' tcaccgacgacggtcaccgctattcagcacagaatggcccaacctgagttctgctatcaatggcctattc
 Ori

5' ggcgagcggtcgggctgaacggggggttcgtgcacacagcccagcttggagcgaacgacctacaccgaac
 1610
 3' cgcgtcgccagcccgacttgcccccaagcacgtgtgtcgggtcgaacctcgcttgcctggatgtggcttg
 Ori

5' tgagatacctacagcgtgagctatgagaaagcgccacgcttcccgaaggagaaaggcggacaggtatcc
 1680
 3' actctatggatgtcgcactcgatactcttctcgcggtgcgaagggttccctcttccgcctgtccatagg
 Ori

5' ggtaagcggcagggtcggaacaggagagcgcacgaggagcttccaggggaaacgcctggatatctttat
 1750
 3' ccattcgccgtcccagccttgtcctctcgctgctccctcgaagggtcccccttgcggaccatagaaata
 Ori

5' agtcctgtcgggttccgccacctctgacttgagcgtcgatTTTTGTGATGCTCGTCAGGGGGGCGGAGCC
 1820
 3' tcaggacagcccaaagcgggtggagactgaactcgcagctaaaaacactacgagcagtcccccgcctcgg
 Ori

5' tatggaaaaacgccagcaacgcggcctttttacgggttctggccttttgetggccttttgetcacatggt
 1890
 3' ataccttttgcggctggttgcgcccggaaaaatgccaaggaccggaaaaacgaccggaaaaacgagtgtaaa
 Ori

5' ctttcctgcggttatcccctgattctgtggataaccgtattaccgcctttgagtgagctgataccgctcgc
 1960
 3' gaaaggacgcaataggggactaagacacctattggcataatggcggaaactcactcgactatggcgagcg

Pcil

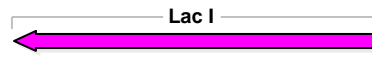
BGH02_B01a-pET16-DEST

o
 5' ggcacgatagtcacgccccgcgcccaccggaaggagctgactgggttgaaggctctcaagggcatcggtc
 o
 3' cgctgctatcagtacggggcgcggtggccttctctcgactgacccaacttccgagagttcccgtagccag

3710

o
 5' gagatcccgggtgcctaagtgagtgagctaacttacattaattgcggttgcgctcactgcccgctttccagtc
 o
 3' ctctagggccacggattactcactcgattgaatgtaattaacgcaacgcgagtgacggggcgaagggtcag

3780



o
 5' gggaaacctgctcgtgccagctgcattaatgaatcggccaacgcgcggggagaggcggtttgcgtattggg
 o
 3' cccttgacagcacggctcgacgtaattacttagccggttgcgcgcccctctccgccaacgcataacc

3850

BsaXI'

Lac I

BsaXI

o
 5' cgccagggtgggttttctttcaccagtgagacgggcaacagctgattgccttcaccgcctggccctga
 o
 3' gcggtcccaccaaaaagaaaagtggtcactctgcccggttgtcgactaacgggaagtggcggaccgggact

3920

Lac I

HpaI

o
 5' gagagttgcagcaagcgggtccacgctgggttgccccagcaggcgaaaatcctggttgatggtggttaacg
 o
 3' ctctcaacgctcgttcgccagggtgcgaccaaagggtcgtccgcttttaggacaaactaccaccaattgc

3990

Lac I

o
 5' gcgggatataacatgagctgtcttcgggtatcgtcgtatcccactaccgagatatccgcaccaacgcgcag
 o
 3' cgccctatatgtactcgacagaagccatagcagcatagggtgatggctctataggcgtggttgcgcgctc

4060

Lac I

BssHII

o
 5' cccggactcggtaatggcgcgcattgcgcccagcgcacatctgatcgttggcaaccagcatcgcagtggga
 o
 3' gggcctgagccattaccgcgcgtaacgcgggtcgcggttagactagcaaccggttggtcgtagcgtcaccct

4130

Lac I

o
 5' acgatgccctcattcagcatttgcatgggttggttgaaaaccggacatggcactccagtcgccttcccgtt
 o
 3' tgctacgggagtaagtcgtaaacgtaccaaacactttggcctgtaccgtgaggtcagcgggaagggcaa

4200

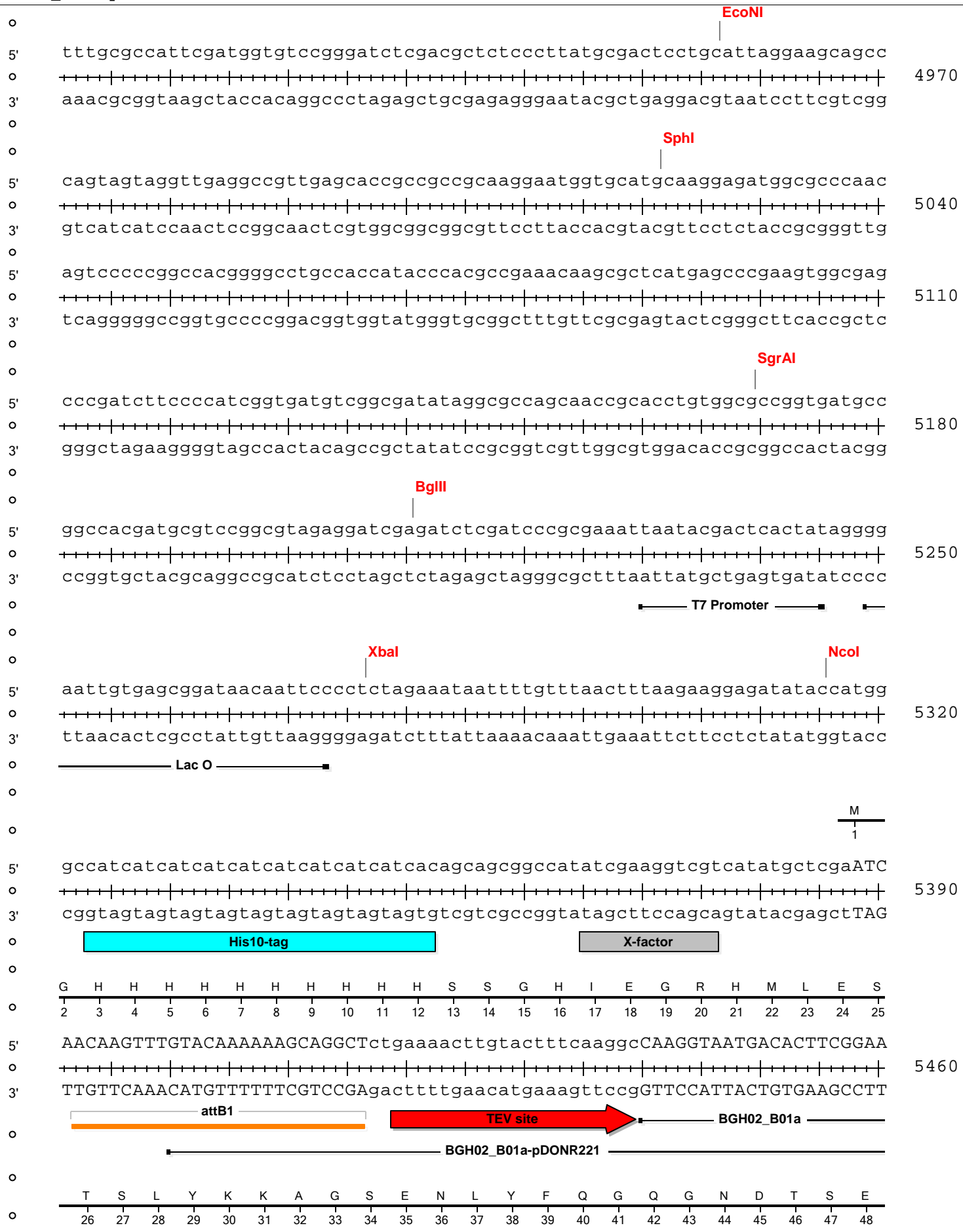
Lac I

o
 5' ccgctatcggctgaatttgattgcgagtgagatatttatgccagccagccagacgcagacgcgcggagac
 o
 3' ggcgatagccgacttaactaacgctcactctataaatacggctcggtcggctctgcgctctgcgcggctctg

4270

Lac I

o
5' agaacttaatgggcccgctaacagcgcgatttgcctggtgacccaatgcgaccagatgctccacgcccagt 4340
o
3' tcttgaattacccggcgattgtcgcgctaaacgaccactgggttacgctggtctacgaggtgcggggtca
o
Lac I
o
5' cgcgtaccgtcttcatgggagaaaataataactggtgatgggtgctctggtcagagacatcaagaaataacg 4410
o
3' gcgcatggcagaagtaccctcttttattatgacaactaccacagaccagtctctgtagttctttattgc
o
Lac I
o
5' ccggaacattagtgaggcagcttccacagcaatggcatcctgggtcatccagcggatagttaatgatcag 4480
o
3' ggccttgtaatcacgtccgtcgaagggtgctggtaccgtaggaccagtaggtcgccatcaataactagtc
o
Lac I
o
o
o
o
5' cccactgacgcgttgcgcgagaagattgtgcaccgcgctttacaggcttcgacgccgcttcgttctacc 4550
o
3' ggggtgactgcgcaacgcgctcttctaacacgtggcgggcgaatgtccgaagctgcgggcgaagcaagatgg
o
Lac I
o
5' atcgacaccaccagctggcaccagttgatcggcgcgagatttaatcgccgcgacaatttgcgacggcg 4620
o
3' tagctggtggtggtgacccggtgggtcaactagccgcgctctaaattagcggcgctgttaaaccgctgccg
o
Lac I
o
5' cgtgcagggccagactggaggtggcaacgccaatcagcaacgactgtttgcccgcagttggtgtgccac 4690
o
3' gcacgtcccggctgacctccaccgttgcggttagtcggtgctgacaaacgggcggtcaacaacacggtg
o
Lac I
o
5' gcggttgggaatgtaattcagctccgccatcgccgcttccactttttcccgcggttttcgcagaaacgtgg 4760
o
3' cgccaacccttacattaagtcgagggcggtagcggcgaaggtgaaaaagggcgcaaaagcgtctttgcacc
o
Lac I
o
5' ctggcctggttcaccacgcgggaaacggctctgataagagacaccggcatactctgcgacatcgtataacg 4830
o
3' gaccggaccaagtgggtgcgccctttgccagactattctctgtggccggtatgagacgctgtagcatattgc
o
5' ttactggtttcacattcaccacctgaattgactctcttccgggcgctatcatgccataccgcgaaaggt 4900
o
3' aatgaccaaagtgtaagtgggtgggacttaactgagagaaggcccgcatagtagcggatggcgctttcca
o



BGH02_B01a-pET16-DEST

5' GTCATGCTACTGGATACCGGTTGGGAATTTTCTCAATCAGGGACTGAAAAGTGGATGCCAGCCACGGTTC
 0 ++++++
 3' CAGTACGATGACCTATGGCCAACCTTAAAAGAGTTAGTCCCTGACTTTTTCACCTACGGTTCGGTGCCAAG

5530

BGH02_B01a

BGH02_B01a-pDONR221

V M L L D T G W E F S Q S G T E K W M P A T V
 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71

5' CTGGTACGGTTCATCAGGACCTGATCAGTCATGAATTACTGCCGAATCCTTTTATGGGATGAATGAAAA
 0 ++++++
 3' GACCATGCCAAGTAGTCTCTGGACTAGTCAGTACTTAATGACGGCTTAGGAAAAATACCCTACTTACTTTT

5600

BGH02_B01a

BGH02_B01a-pDONR221

P G T V H Q D L I S H E L L P N P F Y G M N E K
 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

MfeI

5' GAAAATTC AATGGGTGGAGAATGAGGACTGGGAATATAGAACCTCCTTTATAGTCTCCGAAGAGCAATTG
 0 ++++++
 3' CTTTTAAGTTACCCACCTCTTACTCCTGACCCTTATATCTTGGAGGAAATATCAGAGGCTTCTCGTTAAC

5670

BGH02_B01a

BGH02_B01a-pDONR221

K I Q W V E N E D W E Y R T S F I V S E E Q L
 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118

5' AATCGTGACGGAATCCAACCTTATTTTTGAAGGTCTTGATACCTATGCAGACGTATATCTCAACGGCTCAT
 0 ++++++
 3' TTAGCACTGCCTTAGGTTGAATAAAAACCTTCCAGAACTATGGATACGTCTGCATATAGAGTTGCCGAGTA

5740

BGH02_B01a

BGH02_B01a-pDONR221

N R D G I Q L I F E G L D T Y A D V Y L N G S
 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141

5' TACTGCTGAAGGCTGATAATATGTTTGTGGGTTATACACTTCTGTAAAATCTGTGTTGCGGAAGGGCGA
 0 ++++++
 3' ATGACGACTTCCGACTATTATACAAACACCCAATATGTGAAGGACATTTTAGACACAACGCCTTCCCGCT

5810

BGH02_B01a

BGH02_B01a-pDONR221

L L L K A D N M F V G Y T L P V K S V L R K G E
 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165

BGH02_B01a-pET16-DEST

```

5' GAATCACTTATATATTTTATTTCCATTACCTATTCGGCAAACGTTGCCACAATATGCTTCCAATGGCTTC
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' CTTAGTGAATATATAAATAAAGGTAAGTGGATAAGCCGTTTGCAACGGTGTATACGAAGGTTACCGAAG

```

5880

BGH02_B01a

BGH02_B01a-pDONR221

N H L Y I Y F H S P I R Q T L P Q Y A S N G F

166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188

```

5' AATTATCCGGCGGATAACGATCATCACGAGAAACATCTTAGTGTGTTTCAGCCGTAAGGCTCCGTATAGTT
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' TTAATAGGCCGCTATTGCTAGTAGTGCTCTTTGTAGAATCACACAAGTCCGATTCAGGATCCGAGGCATATCAA

```

5950

BGH02_B01a

BGH02_B01a-pDONR221

N Y P A D N D H H E K H L S V F S R K A P Y S

189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211

```

5' ACGGTTGGGACTGGGGCATCCGAATGGTGACAAGTGGTGTCTGGCGCCCGGTTACTCTTCGTTTTTACGA
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' TGCCAACCCTGACCCCGTAGGCTTACCACTGTTTACCACAGACCGCGGGCCAATGAGAAGCAAAAATGCT

```

6020

BGH02_B01a

BGH02_B01a-pDONR221

Y G W D W G I R M V T S G V W R P V T L R F Y D

212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235

```

5' CATAGCTACCATATCCGACTACTATGTCAGACAATTATCGCTGACAGATGAAAACGCTCGTCTGTCTAAT
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' GTATCGATGGTATAGGCTGATGATACAGTCTGTTAATAGCGACTGTCTACTTTTGCGAGCAGACAGATTA

```

6090

BGH02_B01a

BGH02_B01a-pDONR221

I A T I S D Y Y V R Q L S L T D E N A R L S N

236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258

```

5' GAGCTGATTGTAAACCAGATCGTTCCTCAGAAAATTCCGGCTGAAGTAAGGGTCAATGTATCGTTGAATG
o  ++++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|+++++|
3' CTCGACTAACATTTGGTCTAGCAAGGAGTCTTTTAAAGCCGACTTCATTCCCAGTTACATAGCAACTTAC

```

6160

Psrl

BGH02_B01a

BGH02_B01a-pDONR221

E L I V N Q I V P Q K I P A E V R V N V S L N

259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281

o
5' GAACTACCGTTACAGAAGTAAAACAGCAGGTGACACTGCAACCCGGGATAAATCATATCACTCTTCCTGC
o
3' CTTGATGGCAATGTCTTCATTTTGTCTGTCCTACTGTGACGTTGGGCCCTATTTAGTATAGTGAGAAGGACG
o
————— BGH02_B01a —————

6230

o
————— BGH02_B01a-pDONR221 —————

o
G T T V T E V K Q Q V T L Q P G I N H I T L P A
o
282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305

5' TGAAGTGACGAACCCTGTACGATGGATGCCAAATGGTTGGGGAACTCCGACTCTGTATGATTTCTCGGCT
o
3' ACTTCACTGCTTGGGACATGCTACCTACGTTTACCAACCCCTTGAGGCTGAGACATACTAAAGAGCCGA
o
————— BGH02_B01a —————

6300

o
————— BGH02_B01a-pDONR221 —————

o
E V T N P V R W M P N G W G T P T L Y D F S A
o
306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328

5' CAGATAGCTTGTGGAGATCGGATTGTTGCGGAACAATCTCATCGGATTGGTTTACGAACGATTCGTGTGG
o
3' GTCTATCGAACACCTCTAGCCTAACAACGCCTTGTAGAGTAGCCTAACCAAATGCTTGCTAAGCACACC
o
————— BGH02_B01a —————

6370

o
————— BGH02_B01a-pDONR221 —————

o
Q I A C G D R I V A E Q S H R I G L R T I R V
o
329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351

5' TAAATGAAAAAGATAAGGACGGAGAATCTTTTTATTTTGAAGTCAATGGCATAACCGATGTTTGCCAAAGG
o
3' ATTTACTTTTTCTATTCCCTGCCTCTTAGAAAAATAAACTTCAGTTACCGTATGGCTACAAACGGTTTTCC
o
————— BGH02_B01a —————

6440

o
————— BGH02_B01a-pDONR221 —————

o
V N E K D K D G E S F Y F E V N G I P M F A K G
o
352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375

o
Bsu36I
5' AGCTAATTATATTCCTCAGGATGCACTGCTGCCTAATGTTACTACGGAACGCTATCAGACTTTGTTCCGT
o
3' TCGATTAATATAAGGAGTCTTACGTGACGACGGATTACAATGATGCCTTGCGATAGTCTGAAACAAGGCA
o
————— BGH02_B01a —————

6510

o
————— BGH02_B01a-pDONR221 —————

o
A N Y I P Q D A L L P N V T T E R Y Q T L F R
o
376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398

BGH02_B01a-pET16-DEST

5' GACATGAAGGAGGCCAATATGAATATGGTTTCGTATATGGGGTGGTGGGACATATGAGAATAATCTTTTCT
6580
3' CTGTACTTCCTCCGTTTACTTATAACCAAGCATATACCCCACCACCTGTATACTCTTATTAGAAAAGA

BGH02_B01a

BGH02_B01a-pDONR221

D M K E A N M N M V R I W G G G T Y E N N L F
399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421

5' ATGACCTTGCCGATGAGAACGGGATACTTGTCTGGCAGGATTTTATGTTTGCGTGTACCCCTTATCCATC
6650
3' TACTGGAACGGCTACTCTTGCCCTATGAACAGACCGTCCTAAAATACAAACGCACATGGGGAATAGGTAG

BGH02_B01a

BGH02_B01a-pDONR221

Y D L A D E N G I L V W Q D F M F A C T P Y P S
422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445

5' CGATCCTACTTTTCTGAAACGGGTAGAGGCGGAGGCTGTTTACAATATTCGTCGTCTTCCGGAATCATGCC
6720
3' GCTAGGATGAAAGGACTTTGCCCATCTCCGCCTCCGACAAATGTTATAAGCAGCAGAAGCCTTAGTACGG

BGH02_B01a

BGH02_B01a-pDONR221

D P T F L K R V E A E A V Y N I R R L R N H A
446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468

5' TCTTTGGCGATGTGGTGTGGTAATAATGAAATACTGGAAGCTCTGAAATATTGGGGTTTTGAGAAGAAGT
6790
3' AGAAACCGCTACACCACACCATTATTACTTTATGACCTTCGAGACTTTATAACCCCAAACCTTCTTCA

BGH02_B01a

BGH02_B01a-pDONR221

S L A M W C G N N E I L E A L K Y W G F E K K
469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491

5' TTACTCCGGAGGTTTATCAAGGATTAATGCATGGTTATGATAAACTGTTCCGTGAGCTGTTGCCTTCAAC
6860
3' AATGAGGCCTCCAAATAGTTCCCTAATTACGTACCAATACTATTTGACAAGGCACTCGACAACGGAAGTTG

BGH02_B01a

BGH02_B01a-pDONR221

F T P E V Y Q G L M H G Y D K L F R E L L P S T
492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515

BGH02_B01a-pET16-DEST

5' GGTTAAAGAATTTGATTCGGATCGTTTTTATGTGCACAGTTCGCCTTATCTCGCTAACTGGGGGCGTCCG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CCAATTTCTTAAACTAAGCCTAGCAAAAATACACGTGTCAAGCGGAATAGAGCGATTGACCCCCGCAGGC

6930

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

V K E F D S D R F Y V H S S P Y L A N W G R P
 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538

5' GAGTCATGGGGGACAGGAGACAGTCATAATTGGGGAGTCTGGTACGAAAGAAGCCATTTGAGTCTTTAG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CTCAGTACCCCCTGTCCTCTGTCAGTATTAACCCCTCAGACCATGCCTTTCTTCGGTAAACTCAGAAATC

7000

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

E S W G T G D S H N W G V W Y G K K P F E S L
 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561

5' ATACCGATTTGCCGCGTTTTATGAGTGAATTTGGTTTCCAGTCATTTCCGGAGATGAAAAC TATTGCTGC
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TATGGCTAAACGGCGCAAAAATACTCACTTAAACCAAAGGTCAGTAAAGGCCTCTACTTTTGATAACGACG

7070

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

D T D L P R F M S E F G F Q S F P E M K T I A A
 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585

5' TTTTGCTGCTCCTGAAGATTATCAGATTGAGTCTGAAGTGATGAATGCGCATCAGAAGAGTAGTATTGGT
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AAAACGACGAGGACTTCTAATAGTCTAACTCAGACTTCACTACTTACGCGTAGTCTTCTCATCATAACCA

7140

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

F A A P E D Y Q I E S E V M N A H Q K S S I G
 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608

5' AATTCGTTGATCCGTA CTTATATGGAACGTGATTATATCATTCCCGAAAGTTTCGAGGATTTGTGTATG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TTAAGCAACTAGGCATGAATATACCTTGCAC TAATATAGTAAGGGCTTTC AAAGCTCCTAAAACACATAC

7210

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

N S L I R T Y M E R D Y I I P E S F E D F V Y
 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631

BGH02_B01a-pET16-DEST

5' TCGGATTAGTCTTGCAAGGACAGGGGATGCGGCATGGACTGGAAGCTCACAGACGCAATCGTCCTTATTG
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' AGCCTAATCAGAACGTTCTGTCCTGTCCTACGCCGTACCTGACCTTCGAGTGTCTGCGTTAGCAGGAATAAC

7280

BGH02_B01a

BGH02_B01a-pDONR221

V G L V L Q G Q G M R H G L E A H R R N R P Y C
 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655

5' TATGGGGACATTGTATTGGCAGTTGAACGACAGTTGGCCGGTAGTATCCTGGTCAAGTATTGATTATTAT
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' ATACCCCTGTAAACATAACCGTCAACTTGCTGTCAACCGGCCATCATAGGACCAGTTCATAACTAATAATA

7350

BGH02_B01a

BGH02_B01a-pDONR221

M G T L Y W Q L N D S W P V V S W S S I D Y Y
 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678

5' GGTAATTGGAAGGCATTACATTATCAGGCAAAGCGTGCTTTTGCACCGGTCTTGATCAATCCTATACAGC
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CCATTAACCTTCCGTAATGTAATAGTCCGTTTCGCACGAAAACGTGGCCAGAAGTCTAGTTAGGATATGTCG

7420

BGH02_B01a

BGH02_B01a-pDONR221

G N W K A L H Y Q A K R A F A P V L I N P I Q
 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701

5' AGAATGACAGTTTGGAGTGTCTATCTGATCTCAGACCGGCTTGATAACAATGGAGCAAATGACATTGGAAAT
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' TCTTACTGTCAAACCTCACAGATAGACTAGAGTCTGGCCGAAGTATGTTACCTCGTTTACTGTAACCTTTA

7490

BGH02_B01a

BGH02_B01a-pDONR221

Q N D S L S V Y L I S D R L D T M E Q M T L E M
 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725

5' GAAAGTCGTGGATTTTGGATGGAAAAACGCTGGGTAAGAAGATAACAAGTACATTCGTTGGAAGTTCGGCA
 +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 3' CTTTCAGCACCTAAAACCTTTTTGCGACCCATTCTTCTATGTTTCATGTAAGCAACCTTCAAGGCCGT

7560

BGH02_B01a

BGH02_B01a-pDONR221

K V V D F D G K T L G K K I Q V H S L E V P A
 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748

BGH02_B01a-pET16-DEST

5' AATACTTCAAAATGTGTTTATCGTGCAAAACTGGATGGCTGGCTGACTCCCGAAGACTGCCGACGTAGCT
 0
 3' TTATGAAGTTTTACACAAATAGCACGTTTTGACCTACCGACCGACTGAGGGCTTCTGACGGCTGCATCGA

7630

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

N T S K C V Y R A K L D G W L T P E D C R R S
 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771

5' TCTTCAAATTGATACTCAAAGATAAATCGGGACATCAGGTGGCTGAGAGCGTCCATTTTTTCAGAAAGAC
 0
 3' AGAACTTTAACTATGAGTTTTCTATTTAGCCCTGTAGTCCACCGACTCTCGCAGGTAAAAAAGTCTTTCTG

7700

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

F L K L I L K D K S G H Q V A E S V H F F R K T
 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795

Bael

Bael'

5' GAAAGATTTGCAACTTCCTCCGACATCAGTATCCTATCAAATGAAGCAGACGGATGGTAAATGTGAATTG
 0
 3' CTTTCTAAACGTTGAAGGAGGCTGTAGTCATAGGATAGTTTACTTCGTCTGCCTACCATTTACACTTAAC

7770

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

K D L Q L P P T S V S Y Q M K Q T D G K C E L
 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818

5' ACTCTCTTTTCATCAATGTTGGCAAAGATATTTTTATTGAGACTCCATTGCAAGGAGCCCGTTACAGTG
 0
 3' TGAGAGAAAAGTAGTTACAACCGTTTTTCTATAAAAATAACTCTGAGGTAACGTTCTCGGGCAATGTCAC

7840

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

T L F S S M L A K D I F I E T P L Q G A R Y S
 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841

5' ACAACTTCTTTGATCTCTTACCCGGAGAACGTAAGAAAGTAATTATCACTTCTCCCCGATAAAGAAGGG
 0
 3' TGTTGAAGAACTAGAGAATGGGCCTCTTGCATTCTTTCATTAATAGTGAAGAGGGGCCTATTTCTTCCC

7910

————— BGH02_B01a —————

————— BGH02_B01a-pDONR221 —————

D N F F D L L P G E R K K V I I T S P R I K K G
 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865

BGH02_B01a-pET16-DEST

5' AGAAGAATTACCTGTCAATATCAAGCATATTCGAGAAACCTATAAATAGGACCCAGCTTTCTTGTACAAA
 0
 3' TCTTCTTAATGGACAGTTATAGTTCGTATAAGCTCTTTGGATATTTATCCTGGGTCGAAAGAACATGTTT
 7980

————— **BGH02_B01a** ————— **attB2** —————
 ————— **BGH02_B01a-pDONR221** —————

E E L P V N I K H I R E T Y K .
 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881

BamHI | | **BlnI**
 5' GTGGTTGATtccgaggatccggctgctaacaagcccgaagggaagctgagttggctgctgccaccgctga
 0
 3' CACCAACTAagctcctaggccgacgattgtttcgggctttccttcgactcaaccgacgacggtggcgact
 8050

— **attB2** — — **T7 ...or** —

5' gcaataactagcataacccttggggcctctaaacgggtcttgaggggttttttgctgaaaggaggaact
 0
 3' cgttattgatcgtattggggaaccccgagatttgcccagaactccccaaaaaacgactttcctccttga
 8120

————— **T7 Terminator** —————

5' atatccggatatcccgaagaggcccggcagtagccgataaccaagcctatgcctacagcatccagggt
 0
 3' tataggcctatagggcgcttctccgggcccgtcatggccgtattggttcggatacggatgtcgtaggtccca
 8190

5' gacggtgccgaggatgacgatgagcgcattgttagatcctacacgggtgcctgactgcgttagcaattt
 0
 3' ctgccacggctcctactgctactcgcgtaacaatctaaagtatgtgccacggactgacgcaatcgttaaa
 8260

HindIII | **ClaI** | **EcoRI**
 5' aactgtgataaactaccgcattaaagcttatcgatgataagctgtcaaacatgagaa
 0
 3' ttgacactatcctgatggcgtaatttcgaatagctactattcgacagtttgactctt
 8317