

BGH35\_B04a-pET16-DEST

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70



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140

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210



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 0 ++++++  
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280



Ap

5' ccagaaacgctggtgaaagtaaaagatgctgaagatcagttgggtgcacgagtggttacatcgaactgg  
 0 ++++++  
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350



Ap

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420



Ap

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490



Ap

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560



Ap

5' gagaattatgcagtgctgccataaccatgagtgataaactgCGGCCAACTTACTTCTGACAACGATCGG  
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630



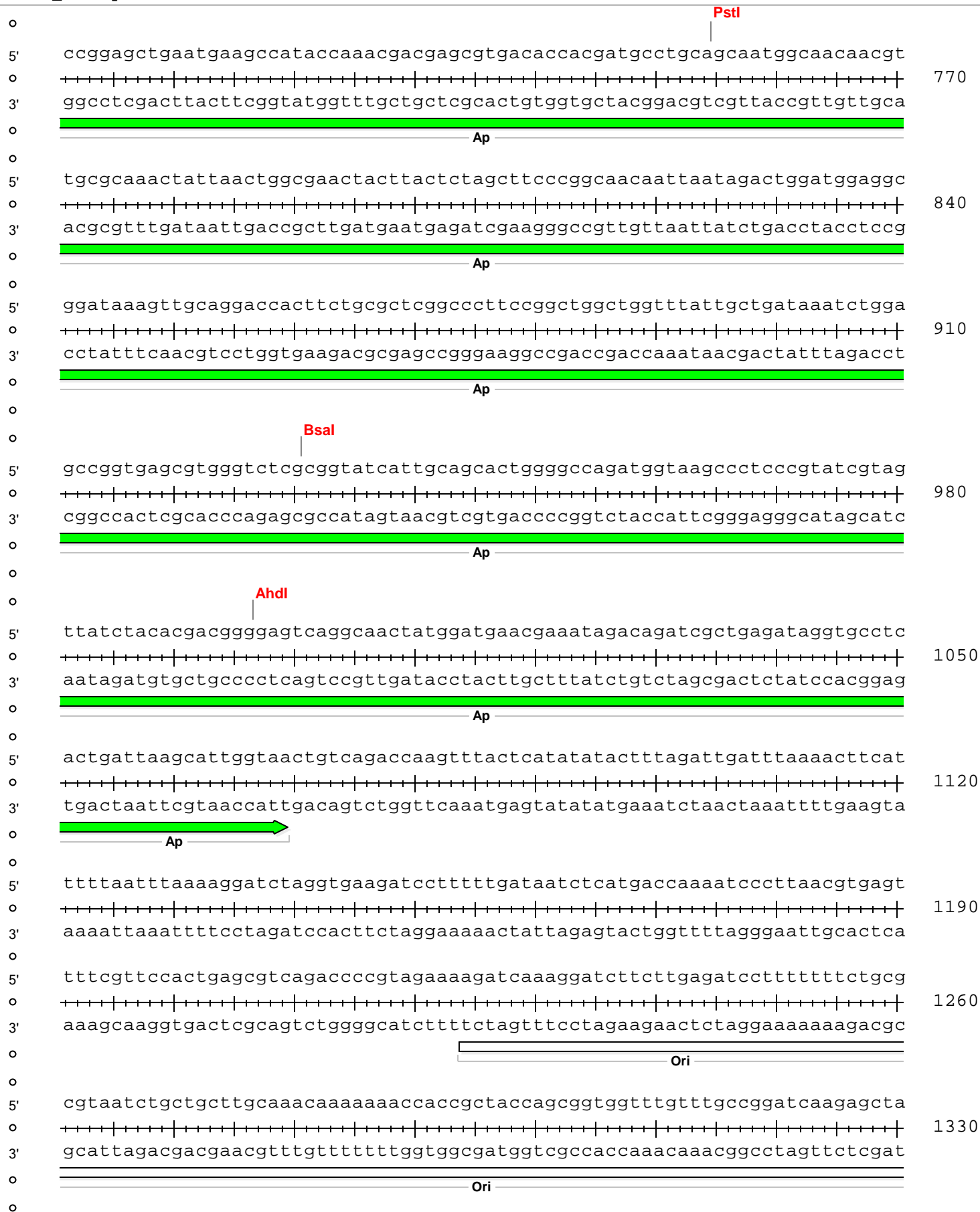
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Ap



BGH35\_B04a-pET16-DEST

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Ori

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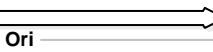
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Ori

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SapI

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BGH35\_B04a-pET16-DEST

FspAI

MscI

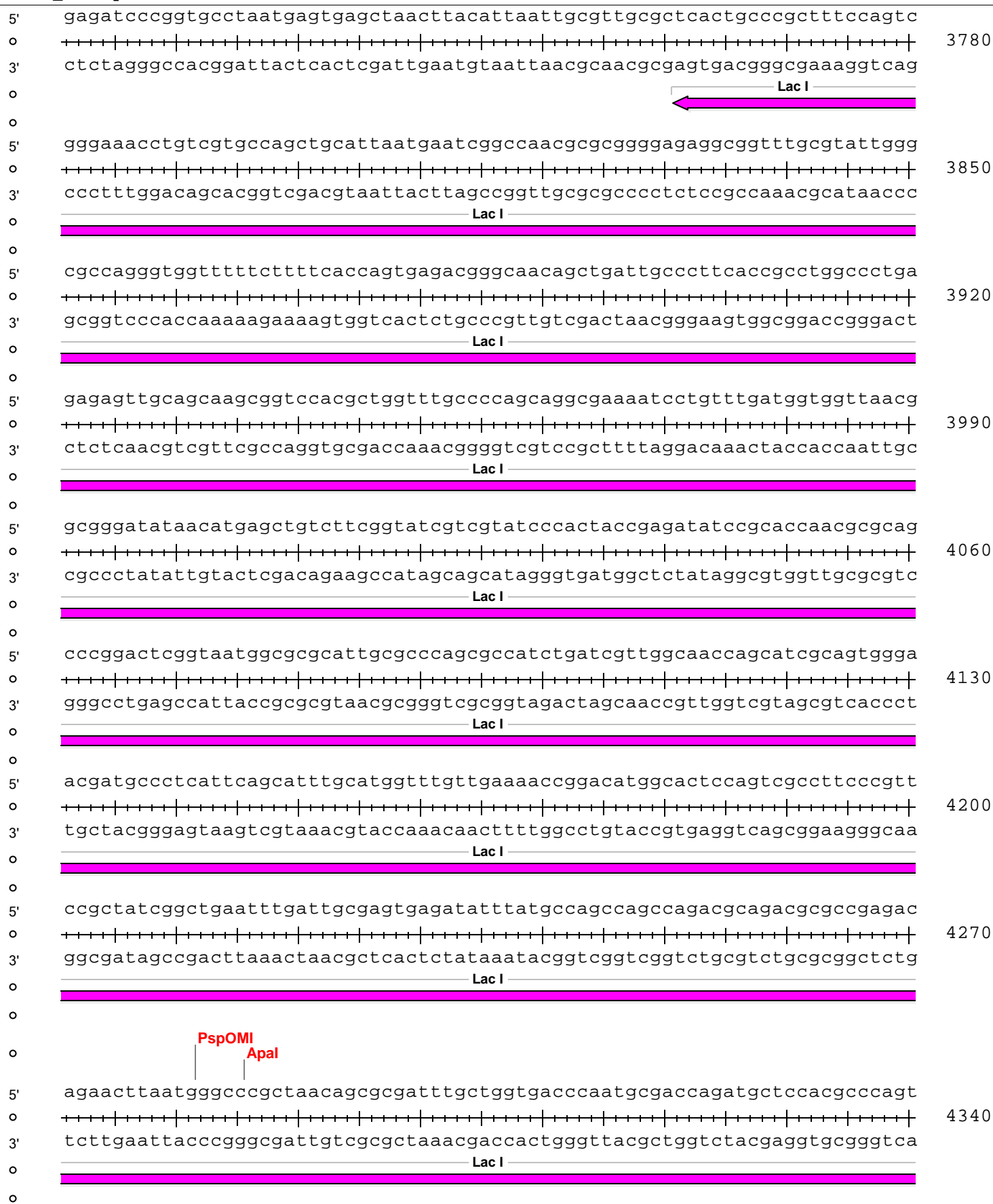
BsmI

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3640  
3710

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BGH35\_B04a-pET16-DEST

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5110

SgrAI

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BglII

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5250

T7 Promoter

XbaI

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 0 ++++++  
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5320

Lac O

M  
1

NdeI

5' gccatcatcatcatcatcatcatcatcacagcagcggccatatcgaaggctcgtcatatgctcgaATC  
 0 ++++++  
 3' cggtagtagtagtagtagtagtagtagtagtgctcgtcgccggatagcttccagcagatatacagagctTAG

5390

His10-tag

X-factor

G H H H H H H H H H S S G H I E G R H M L E S  
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5' AACAAAGTTTGTACAAAAAAGCAGGCTctgaaaacttgtactttcaaggcAGCCGGTTAACATGGAAGGAT  
 0 ++++++  
 3' TTGTTCAAACATGTTTTTTCGTCCGAgacttttgaacatgaaagtccgTCGGCCAATTGTACCTTCTTA

5460

attB1

TEV site

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T S L Y K K A G S E N L Y F Q G S R L T W K D  
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BGH35\_B04a-pET16-DEST

**BseRI**

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5530

————— **BGH35\_B04a** —————

————— **BGH35\_B04a-pDONR221** —————

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

**StuI**

5' CGGAATATTGGGAGGACAGGCTGCTGAAGCTGAAGGCCTGCGGTTTCAATACGGTAGAGACGTATATTCC  
 3' GCCTTATAACCCTCCTGTCCGACGACTTCGACTTCCGGACGCCAAAGTTATGCCATCTCTGCATATAAGG

5600

————— **BGH35\_B04a** —————

————— **BGH35\_B04a-pDONR221** —————

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 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

5' GTGGAACCTGCATGAACCCCGCGAGGGAAGCTTCCGCTTCGACGGGTTTGCGGATGTCGCCCGGTTTCATA  
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5670

————— **BGH35\_B04a** —————

————— **BGH35\_B04a-pDONR221** —————

W N L H E P R E G S F R F D G F A D V A R F I  
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**SfiI**

**PmlI**

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5740

————— **BGH35\_B04a** —————

————— **BGH35\_B04a-pDONR221** —————

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5' TTGGCGGCTTGCCGGCCTGGCTGCTGAAATCGTCCATGGGCTTGCCTGCATGGATAATGAATACCTGGA  
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5810

————— **BGH35\_B04a** —————

————— **BGH35\_B04a-pDONR221** —————

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BGH35\_B04a-pET16-DEST

Sall

RsrII

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5880

BGH35\_B04a

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5950

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5' GGGATGGCCTGATCCGACGCGGAGTTGACTGTCTGCTGTTACCTCGGACGGCCCAACGGACGAGATGCT  
 3' CCCTACCGGACTAGGCTGCGCCTCAACTGACAGACGACAAGTGGAGCCTGCCGGGTTGCCTGCTCTACGA

6020

BGH35\_B04a

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R D G L I R R G V D C L L F T S D G P T D E M L  
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5' GCTGGGCGGCACGGTAGAGGGGCTGCATGCAACAGTTAACTTCGGTTCGCGCGTAGCGGAGTCCCTCGCG  
 3' CGACCCGCGCGTGCATCTCCCCGACGTACGTTGTCAATTGAAGCCAAGCGCGCATCGCCTCAGGGAGCGC

6090

BGH35\_B04a

BGH35\_B04a-pDONR221

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6160

BGH35\_B04a

BGH35\_B04a-pDONR221

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BGH35\_B04a-pET16-DEST

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6230

BGH35\_B04a

BGH35\_B04a-pDONR221

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5' GGCATCCGTGAATCTCTACATGTTCCACGGCGGGACAAACTTCGGCTTTTACAGCGGAGCCAACTACGGT  
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6300

BGH35\_B04a

BGH35\_B04a-pDONR221

A S V N L Y M F H G G T N F G F Y S G A N Y G  
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6370

BGH35\_B04a

BGH35\_B04a-pDONR221

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5' AGAAATACAAAGCTATCCGAAGCGTGCTCGAAAAGCACGGCATAACCGGAAGGAGCGCCGTTCCCGGCTCC  
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6440

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 3' CTAAGGCTTCTTTCGAATGCCGTTCCAATAAAATTGCCTTGCCCCGCTAAACGACCTAGTCGAGCTCGTC

6510

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PspXI  
XhoI

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AsiSI

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6650

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5' CGCTCAGGTATTCCTGGACGGCAAGCTGATCGGCGTTGTTGAGCGGTGGAATCCGCAGCCGATTGAGATC  
 3' GCGAGTCCATAAGGACCTGCCGTTTCGACTAGCCGCAACAACCTCGCCACCTTAGGCGTCGGCTAACTCTAG

6720

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

5' GCGGTTCAGAGAAAGGGCAAGATTGGATGTCCTGGTCGAAAATATGGGCGCGTTAATTACGGCCCTT  
 3' CGCCAAGGGTCTTCCCCGTTCTAACCTACAGGACCAGCTTTTATACCCGGCGCAATTAATGCCGGGAA

6790

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A V P R E G A R L D V L V E N M G R V N Y G P  
 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491

5' ATCTGCGGATCATAAAGGAATAACGGAAGGTATCCTGATCGATAACCAGTTCCAGTCGAACTGGACGGT  
 3' TAGACGCGCTAGTATTTCTTATTGCCTTCCATAGGACTAGCTATTGGTCAAGGTCAGCTTGACCTGCCA

6860

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

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5' TACCCTGCTGCCGCTTGAGTCCGAGCAGCTCGCTCGGGTCCGCTATGAGTCTGTGGAAGTAACAGGGGGA  
 0 ++++++  
 3' ATGGGACGACGGCGAACTCAGGCTCGTCGAGCGAGCCCAGGCGATACTCAGACACCTTCATTTGCCCCCT

6930

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

5' CAGCAGCATGACGGGCGTCTGCCTTCTATCGTGGATTTGTGGAGGTGGATGAACCTGCCGATACGTTCC  
 0 ++++++  
 3' GTCGTCTGACTGCCCGCAGGACGGAAGATAGCACCTAAACACCTCCACCTACTTGGACGGCTATGCAAGG

7000

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

5' TCCGGTTTGACGGCTGGCAGAAGGGGATTGCCTGGATCAACGGCTTCCAGCTTGGCCGCTATTGGGAAGC  
 0 ++++++  
 3' AGGCCAAACTGCCGACCGTCTTCCCCTAACGGACCTAGTTGCCGAAGGTCGAACCGGCGATAACCCTTCG

7070

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L R F D G W Q K G I A W I N G F Q L G R Y W E 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' GGGACCGCAGCGCGCTTATACGTGCCGGTCCGCTGCTGCGCAAAGGGGAAAACGAAATTGTTTTATTC  
 0 ++++++  
 3' CCCTGGCGTCGCGCGCAATATGCACGGCCAGGCGACGACGCGTTTCCCCTTTTGCTTTAACAAAATAAG

7140

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

5' GAGCTGCATGGCGTAACCGGACATCCCGAAGTGGATTTAACCGATGCTCCCGACCTTGGCGAGACGGCTG  
 0 ++++++  
 3' CTCGACGTACCGCATTGGCCTGTAGGGCTTCACCTAAATTGGCTACGAGGGCTGGAACCGCTCTGCCGAC

7210

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E L H G V T G H P E V D L T D A P D L G E T A  
 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631

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