

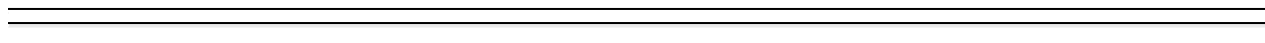
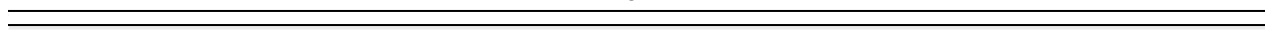
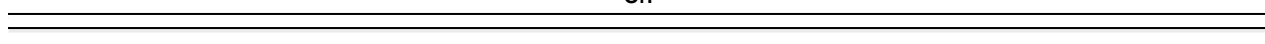
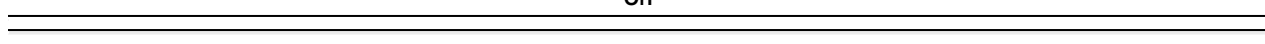
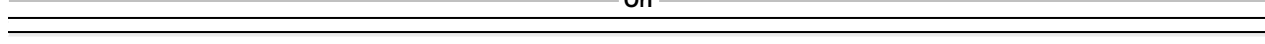
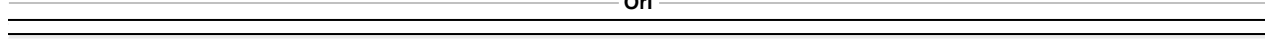
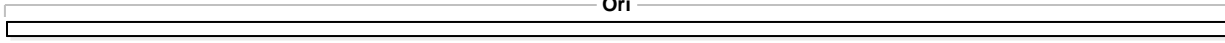




BGT35\_T01b-pET32-DEST

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+ + + + +  
3' cctacttgctttatctgtctagcgactctatccacggagtgactaattcgt aaccattgacagtctggtt  
Ap  
5' gtttactcatatatacttttagattgatttaaaacttcatttttaatttaaaggatctaggtgaagatcc  
+ + + + +  
3' caaatgagtatatatgaaatctaactaaatttgagtaaaaattaaattttcctagatccacttctagg  
5' tttttgataatctcatgaccaaaaatcccttaacgtgagttttcgttccactgagcgtcagaccccgtaga  
+ + + + +  
3' aaaaactattagagtagtggttttagggaattgcactcaaaagcaaggtgactcgcagtctggggcatct  
5' aaagatcaaaggatcttcttgagatccttttttctgvcgtaatctgctgcttgcaaacaaaaaacca  
+ + + + +  
3' tttctagtttccctagaagaactctaggaaaaaaagacgcgcattagacgacgaacgtttgtttttttggt  
Ori  
5' ccgctaccagcgggtggtttgtttgccggatcaagagctaccaactctttttccgaaggtaactggcttca  
+ + + + +  
3' ggcgatggctgccaccaaaaacggcctagttctcgatggttgagaaaaaggcttccattgaccgaagt  
Ori  
5' gcagagcgcagataccaaatactgctccttctagtgtagccgtagttaggccaccacttcaagaactctgt  
+ + + + +  
3' cgtctcgcgtctatggtttatgacaggaagatcacatcggcatcaatccgggtggtgaagttcttgagaca  
Ori  
5' agcaccgcctacatacctcgctctgetaatcctgctaccagtggtgctgccagtgggcgataagtcgtgt  
+ + + + +  
3' tcgtggcggatgtatggagcgcgagacgattaggacaatggtcaccgacgacggtcaccgctattcagcaca  
Ori  
5' cttaccgggttggtgactcaagacgatagttaccggataagggcgcagcggctcgggctgaacgggggggttcgt  
+ + + + +  
3' gaatggcccaacctgagttctgctatcaatggcctattccgcgctgccagcccgacttgcccccgaagca  
Ori  
5' gcacacagcccagcttggagcgaacgcactacaccgaactgagatacctacagcgtgagctatgagaaag  
+ + + + +  
3' cgtgtgctcgggtcgaacctcgttggatgtggcttgactctatggatgtcgcactcgataactctttc  
Ori  
5' cgccacgcttcccgaaggggagaaaggcggacaggtatccggtaagcggcagggctcggaaacaggagagcgc  
+ + + + +  
3' gcggtgccaagggcttccctctttcgcctgtccataggccattcgccgtcccagccttgtcctctcgcg  
Ori

1470  
1540  
1610  
1680  
1750  
1820  
1890  
1960  
2030  
2100



## BGT35\_T01b-pET32-DEST

5' acgagggagcttccaggggaaacgcctggtatctttatagtcctgtcgggttctgccacctctgacttg  
 2170  
 3' tgctccctcgaaggtcccccttgcggaccatagaaatatcaggacagccaaagcgggtggagactgaac  
 Ori

5' agcgtcgatTTTTgtgatgctcgtcagggggcggagcctatggaaaaacgccagcaacgcggcctttt  
 2240  
 3' tcgcagctaaaaaactacgagcagtcccccgcctcggataccttttgcggtcgttgcgccggaaaaa  
 Ori

5' acggttctggccttttgccttttgcctcacaatggtctttcctgcgttatcccctgattctgtggat  
 2310  
 3' tgccaaggaccggaaaaacgaccggaaaaacgagtgtacaagaaaggacgcaataggggactaagacaccta

5' aaccgtattaccgcctttgagtgagctgataccgctcgcgcagccgaacgaccgagcgcagcagtcag  
 2380  
 3' ttggcataatggcggaaactcactcgactatggcgagcggcgtcggcttgctggctcgcgctcgtcagtc

SapI

5' tgagcgaggaagcgggaagagcgcctgatgcggtatTTTctccttacgcacatctgtgcggtatTTTcacaccg  
 2450  
 3' actcgtccttcgccttctcgcggactacgccataaaagaggaatgcgtagacacgccataaagtgtggc

BstZ17I

5' catatatggtgcactctcagtacaatctgctctgatgcccatagttaagccagtatacactccgctatc  
 2520  
 3' gtatataccacgtgagagtcatttagacgagactacggcgtatcaattcggtcatatgtgaggcgatag

Tth111I

5' gctacgtgactgggtcatggctgcgccccgacacccgccaacacccgctgacgcgccctgacgggcttgt  
 2590  
 3' cgatgcactgaccagtagccgacgcgggctgtgggcggttgtgggcgactgcgcgggactgccgaaca

5' ctgctcccggcatccgcttacagacaagctgtgaccgtctccgggagctgcatgtgtcagaggttttcac  
 2660  
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5' cgtcatcaccgaaacgcgcgaggcagctgcggtaaagctcatcagcgtggtcgtgaagcgattcacagat  
 2730  
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5' gtctgcctgttcacccgctccagctcgttgagtttctccagaagcgttaatgtctggcttctgataaag  
 2800  
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5' cgggcatgttaagggcggTTTTTctgTTTggctcactgatgcctccgtgtaaggggatttctgttca  
 2870  
 3' gcccggtacaattcccgcataaaaggacaaaccagtgactacggaggcacattccccctaaagacaagt

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5'	tgggggtaatgataccgatgaaacgagagaggatgctcacgatacgggttactgatgatgaacatgcccg	2940
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5'	gttactggaacgttgtgagggtaaacaactggcgggatggatgcgcgggaccagagaaaaatcactcag	3010
o		
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o		
5'	ggtcaatgccagcgttcgttaatacagatgtaggtgttccacagggtagccagcagcatcctgcgatgc	3080
o		
3'	ccagttacgggtcggaagcaattatgtctacatccacaaggtgtcccatcggtcgctcgtaggacgctacg	
o		
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o		
3'	tctaggccttgatattaccacgtcccgcgactgaaggcgcaaaggtctgaaatgctttgtgcctttggctt	
o		
o		
	<b>Bpu10I</b>	
5'	gaccattcatgttgttgcctcaggtcgcagacgttttgcagcagcagtcgcttcacgttcgctcgcgatc	3220
o		
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o		
5'	ggtgattcattctgctaaccagtaaggcaacccccgccagcctagccgggtcctcaacgacaggagcacga	3290
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o		
o		
	<b>FspAI</b>	
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3'	tggtcactgcttccgaactcgctcccgcacgttctaaggcttatggcgcttcgctgtccggctagtagcag	
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3'	cgcgaggtcgtcttcgccaggagcggctttactgggtctcgcgacggccggtggacaggatgctcaacgt	
o		
o		
	<b>PshAI</b>	
5'	tgataaagaagacagtcataagtgcggcgacgatagtcatgccccgcgccaccggaaggagctgactgg	3570
o		
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3'	caacttccgagagttcccgtagccagctctagggccacggattactcactcgattgaatgtaattaacgc	
o		
5'	ttgcgctcactgcccgtttccagtcgggaaacctgtcgtgccagctgcattaatgaatcggccaaacgcg	3710
o		
3'	aacgcgagtgcggggcgaagggtcagcccttggacagcagcggctcgacgtaattacttagccgggtgcg	
o		
o		
	<b>Lac I</b>	
	←	

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 Lac I  
 3780

5' gattgccttcaccgcctggcctgagagagttgcagcaagcgggtccacgctggtttgcccagcagggcg  
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 Lac I  
 3850

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 Lac I  
 3920

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 Lac I  
 BssHII  
 3990

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 Lac I  
 4060

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 Lac I  
 4130

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 Lac I  
 PspOMI  
 ApaI  
 BstEII  
 4200

5' atgcgaccagatgctccacgcccagtcgcgtaccgtcttcatgggagaaaataactggtgatgggtgt  
 3' tacgctggctctacgaggtgagggtcagcgcgatggcagaagtaccctcttttattatgacaactaccaca  
 Lac I  
 4270

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 3' gaccagtctctgtagttctttattgcggccttgaatcacgtccgctcgaagggtcgttaccgtaggacc  
 Lac I  
 4340

o  
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o  
Lac I  
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Lac I  
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Lac I  
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5' tgtttgcccgcagttggttgccacgcggttgggaatgtaattcagctccgccatcgcccgttccactt 4620  
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Lac I  
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EcoNI  
o  
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5' gtgcatgcaaggagatggcgcccaacagtccccggccacggggcctgccaccatacccacgcccgaaca 4970  
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o  
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3' tcgagagtactcgggcttcaccgctcgggctagaaggggtagccactacagccgctatatccgcggtcgt  
o  
SgrAI  
o  
5' accgcacctgtggcgccggtgatgccggccacgatgcgtccggcgtagaggatcgagatcgatctcgatc 5110  
o  
3' tggcgtggacaccgcccactacggccggtgctacgcagggccgcatctcctagctctagctagagctag  
o

5' ccgcgaaattaatacgaactcactataggggaattgtgagcggataacaattcccctctagaataatttt  
 3' ggcgctttaattatgctgagtgatatccccttaacactcgcctattgttaaggggagatctttattaaaa

← T7 Promoter →
← Lac Operator →

XbaI

5180

5' gtttaactttaagaaggagatatacatatgagcggataaaattattcacctgactgacgacagttttgaca  
 3' caaattgaaattcttcctctatatgtataactcgcctattttaataagtggactgactgctgtcaaaactgt

Trx Tag

5250

M	S	D	K	I	I	H	L	T	D	D	S	F	D
1	2	3	4	5	6	7	8	9	10	11	12	13	14

RsrII

5' cggatgtactcaaagcggacggggcgatcctcgtcgatttctgggcagagtgggtgcgggtccgtgcaaaat  
 3' gcctacatgagtttcgcctgccccgctaggagcagctaaagaccctctcaccacgccaggcaggtttta

Trx Tag

5320

T	D	V	L	K	A	D	G	A	I	L	V	D	F	W	A	E	W	C	G	P	C	K	M
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38

5' gatcgccccgattctggatgaaatcgctgacgaatatcagggcaaaactgaccgttgcaaaactgaacatc  
 3' ctagcggggctaagacctactttagcgaactgcttatagtcctcgtttgactggcaacgttttgacttgtag

Trx Tag

5390

I	A	P	I	L	D	E	I	A	D	E	Y	Q	G	K	L	T	V	A	K	L	N	I
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61

5' gatcaaaaccctggcactgcgccgaaatatggcatccgtggatcccgactctgctgctgttcaaaaacg  
 3' ctagttttgggaccgtgacgcggcctttataccgtaggcacatagggctgagacgacgacaagtttttgc

Trx Tag

5460

D	Q	N	P	G	T	A	P	K	Y	G	I	R	G	I	P	T	L	L	L	F	K	N
62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84

5' gtgaagtggcggcaaccaaagtgggtgcaactgtctaaaggtcagttgaaagagttcctcgacgctaacct  
 3' cacttcaccgcccgttggtttcaccacgtgacagatttcagtcactttctcaaggagctgcgatttga

Trx Tag

5530

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



BGT35\_T01b-pET32-DEST

5' ggccggttctggttctggccatatgcaccatcatcatcattcttctggtctggtgccacgcggttct  
 3' cccgccaagaccaagaccggtatacgtggtagtagtagtaagaagaccagaccacggtgcgccaaga  
 -T...g

His6-tag
Thrombin

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

5600

BstBI

5' ggtatgaaagaaaccgctgctgctaaattcgaacgccagcacatggacagcccagatctgggtaccgacg  
 3' ccatactttcttggcgacgacgatttaagcttgcggtcgtgtacctgtcgggtctagacctatggctgc

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

5670

NcoI

5' acgacgacaaggccatggcgatATCAACAAGTTTGTACAAAAAAGCAGGCTctgaaaacttgtactttca  
 3' tgctgctgttccggtaccgctaTAGTTGTTCAAACATGTTTTTTCGTCCGAgacttttgaacatgaaagt

Enterokinase
attB1
TEV site

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5740

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

AleI

5' aggcTCACAACCTATTTTTAACGATAAGCAATTTTCAGGAAGCGCTTTCACGTCAGTGGCAGCGTTATGGC  
 3' tccgAGTGTGGATAAAAATTGCTATTCGTTAAAGTCCTTCGCGAAAGTGCAGTCACCGTCGCAATACCG

T...
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5810

G S Q P I F N D K Q F Q E A L S R Q W Q R Y G  
 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201

BseRI
 NheI
BmtI

5' TTAAATTCTGCGGCTGAAATGACTCCTCGCCAGTGGTGGCTAGCAGTGAGTGAAGCACTGGCCGAAATGC  
 3' AATTTAAGACGCCGACTTTACTGAGGAGCGGTCACCACCGATCGTCACTCACTTCGTGACCGGCTTTACG

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5880

L N S A A E M T P R Q W W L A V S E A L A E M  
 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224

BGT35\_T01b-pET32-DEST

5' TGCGTGTCTCAGCCATTCGCCAAGCCGGTGGCGAATCAGCGACATGTTAACTACATCTCAATGGAGTTTTT  
 3' ACGCACGAGTCGGTAAGCGGTTCCGGCCACCGCTTAGTCGCTGTACAATTGATGTAGAGTTACCTCAAAAA

5950

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L R A Q P F A K P V A N Q R H V N Y I S M E F L  
 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' GATTGGTCTCGCCTGACGGGCAACAACCTGTTGAATCTCGGCTGGTATCAGGATGTACAGGATTCGTTGAAG  
 3' CTAACCAGCGGACTGCCCGTTGTTGGACAACCTTAGAGCCGACCATAGTCCTACATGTCCTAAGCAACTTC

6020

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I G R L T G N N L L N L G W Y Q D V Q D S L K  
 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271

5' GCTTATGACATCAATCTGACGGACCTGCTGGAAGAAGAGATCGACCCGGCGCTGGGTAACGGTGGTCTGG  
 3' CGAATACTGTAGTTAGACTGCCTGGACGACCTTCTTCTCTAGCTGGGCCGCGACCCATTGCCACCAGACC

6090

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A Y D I N L T D L L E E E I D P A L G N G G L  
 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294

Zral  
AatII

5' GACGTCCTGGCGGCGTGCTTCCTCGACTCAATGGCAACTGTCCGGTCAGTCTGCGACGGGTTACGGTCTGAA  
 3' CTGCAGACCGCCGCACGAAGGAGCTGAGTTACCGTTGACAGCCAGTCAGACGCTGCCCAATGCCAGACTT

6160

BGT35\_T01b

BGT35\_T01b-pDONR221

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

5' CTATCAATATGGTTTGTTCGCCAGTCTTTTGTTCGATGGCAAACAGGTTGAAGCGCCGGATGACTGGCAT  
 3' GATAGTTATAACCAAACAAGGCGGTCAGAAAACAGCTACCGTTTGTCCAACCTTCGCGGCCTACTGACCGTA

6230

BGT35\_T01b

BGT35\_T01b-pDONR221

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

BGT35\_T01b-pET32-DEST

5' CGCAGTAACTACCCGTGGTTCCGCCACAACGAAGCACTGGATGTGCAGGTAGGGATTGGCGGTAAAGTGA  
 0 ++++++  
 3' GCGTCATTGATGGGCACCAAGGCGGTGTTGCTTCGTGACCTACACGTCCATCCCTAACCGCCATTTCACT

6300

BGT35\_T01b

BGT35\_T01b-pDONR221

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

5' CGAAAGACGGACGCTGGGAGCCGGAGTTTACCATTACCGGTCAAGCGTGGGATCTCCCCGTTGTCGGCTA  
 0 ++++++  
 3' GCTTTCCTGCCTGCGACCCTCGGCCTCAAATGGTAATGGCCAGTTCGCACCCTAGAGGGGCAACAGCCGAT

6370

BGT35\_T01b

BGT35\_T01b-pDONR221

T K D G R W E P E F T I T G Q A W D L P V V G Y  
 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' TCGTAATGGCGTGGCGCAGCCGCTGCGTCTGTGGCAGGCGACGCACGCGCATCCGTTTGATCTGACTAAA  
 0 ++++++  
 3' AGCATTACCGCACCGCGTTCGGCGACGCAGACACCGTCCGCTGCGTGCAGCTAGGCAAACCTAGACTGATTT

6440

BGT35\_T01b

BGT35\_T01b-pDONR221

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

5' TTTAACGACGGTGATTTCTTGCGTGCCGAACAGCAGGGCATCAATGCGGAAAACTGACCAAAGTTCTCT  
 0 ++++++  
 3' AAATGCTGCCACTAAAGAACGCACGGCTTGTCGTCCCGTAGTTACGCCTTTTGTACTGGTTTCAAGAGA

6510

BGT35\_T01b

BGT35\_T01b-pDONR221

F N D G D F L R A E Q Q G I N A E K L T K V L  
 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434

5' ATCCAAACGACAACCATACTGCCGGTAAAAAGCTGCGCCTGATGCAGCAATACTTCCAGTGTGCCTGTTC  
 0 ++++++  
 3' TAGGTTTGCTGTTGGTATGACGGCATTTTTCGACGCGGACTACGTCGTTATGAAGGTCACACGGACAAG

6580

BGT35\_T01b

BGT35\_T01b-pDONR221

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





BGT35\_T01b-pET32-DEST

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5'  TTTGTGAAAGTTTCGTACCGGTATTGAGATCAATCCACAGGCATTTTCGATATTTCAGATCAAACGTTTGC
O  +++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|
3'  AAACACTTTC AAGCATGGCCATAACTCTAGTTAGGTGTCCGCTAAAAGCTATAAGTCTAGTTTGCAAACG

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7350

BGT35\_T01b

BGT35\_T01b-pDONR221

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

```

5'  ATGAGTACAAACGCCAGCACCTGAATCTGCTGCATATTCTGGCGTTGTACAAAGAAATTCGTGAAAACCC
O  +++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|
3'  TACTCATGTTTGC GGTTCGTGGACTTAGACGACGTATAAGACCGCAACATGTTTCTTTAAGCACTTTTGGG

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7420

BGT35\_T01b

BGT35\_T01b-pDONR221

H E Y K R Q H L N L L H I L A L Y K E I R E N P  
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'  GCAGGCTGATCGCGTACCGCGCGTCTTCTCTTCCGCGCGAAAGCGGCACCGGGCTACTACCTGGCGAAG
O  +++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|
3'  CGTCCGACTAGCGCATGGCGCGCAGAAGGAGAAGCCGCGCTTTCGCCGTGGCCCGATGATGGACCGCTTC

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7490

BGT35\_T01b

BGT35\_T01b-pDONR221

Q A D R V P R V F L F G A K A A P G Y Y L A K  
739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761

```

5'  AATATTATCTTTGCGATCAACAAAGTGGCTGACGTGATCAACAACGATCCGCTGGTTGGCGATAAGTTGA
O  +++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|
3'  TTATAATAGAAACGCTAGTTGTTTACCGACTGCACTAGTTGTTGCTAGGCGACCAACCGCTATTCAACT

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7560

BGT35\_T01b

BGT35\_T01b-pDONR221

N I I F A I N K V A D V I N N D P L V G D K L  
762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784

```

5'  AGGTGGTGTTCCTGCCGATTATTGCGTTTCGGCGGCGGAAAACTGATCCCGCGGCGGATATCTCCGA
O  +++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|++++|
3'  TCCACCACAAGGACGGCC TAATAACGCAAAGCCCGCCCTTTTTGACTAGGGCCGCGCCTATAGAGGCT

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7630

BGT35\_T01b

BGT35\_T01b-pDONR221

K V V F L P D Y C V S A A E K L I P A A D I S E  
785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808

BGT35\_T01b-pET32-DEST

5' ACAAATTTTCGACTGCAGGTAAAGAAGCTTCCGGTACCGGCAATATGAAACTGGCGCTCAATGGTGCCTT  
 0 ++++++  
 3' TGTTTAAAGCTGACGTCCATTTCTTCGAAGGCCATGGCCGTTATACTTTGACCGCGAGTTACCACGCGAA

7700

BGT35\_T01b

BGT35\_T01b-pDONR221

Q I S T A G K E A S G T G N M K L A L N G A L  
 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831

5' ACTGTCGGTACGCTGGATGGGGCGAACGTTGAAATCGCCGAGAAAGTCCGGTGAAGAAAATATCTTTATTT  
 0 ++++++  
 3' TGACAGCCATGCGACCTACCCCGCTTGCAACTTTAGCGGCTCTTTCAGCCACTTCTTTTATAGAAATAAA

7770

BGT35\_T01b

BGT35\_T01b-pDONR221

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

5' TTGGTCATACCGTGGAAACAAGTGAAGGCAATTCTGGCCAAAGGCTACGACCCGGTGAATGGCGGAAGAA  
 0 ++++++  
 3' AACCAGTATGGCACCTTGTTCACTTCCGTTAAGACCGGTTTCCGATGCTGGGCCACTTTACCGCCTTCTT

7840

BGT35\_T01b

BGT35\_T01b-pDONR221

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

5' AGATAAGGTGCTGGACGACGATTTGAAAGAGCTGGAAAGCGGTAAATACAGCGACGGCGATAAGCATGCC  
 0 ++++++  
 3' TCTATTCACGACCTGCGTCATAACTTTCTCGACCTTTCGCCATTTATGTGCTGCCGCTATTCGTACGG

7910

BGT35\_T01b

BGT35\_T01b-pDONR221

D K V L D A V L K E L E S G K Y S D G D K H A  
 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901

5' TTCGACCAGATGCTGCACAGTATCGGCAAACAGGGCGGCGATCCGTATCTGGTGATGGCGGATTTTCGCAG  
 0 ++++++  
 3' AAGCTGGTCTACGACGTGTCATAGCCGTTTGTCCCGCCGCTAGGCATAGACCACTACCGCCTAAAGCGTC

7980

BGT35\_T01b

BGT35\_T01b-pDONR221

F D Q M L H S I G K Q G G D P Y L V M A D F A  
 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924

BGT35\_T01b-pET32-DEST

5' CCTATGTAGAGGCACAAAAGCAGGTGGATGTGCTGTACCGCGACCAGGAGGCCTGGACTCGCGCGGCGAT  
 3' GGATACATCTCCGTGTTTTTCGTCCACCTACACGACATGGCGCTGGTCCTCCGGACCTGAGCGCGCCGCTA

8050

BGT35\_T01b

BGT35\_T01b-pDONR221

A Y V E A Q K Q V D V L Y R D Q E A W T R A A I  
 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948

5' CCTCAATACCGCCCGCTGCGGTATGTTTAGCTCGGATCGCTCTATTCGCGATTATCAGGCTCGTATCTGG  
 3' GGAGTTATGGCGGCGACGCCATACAAATCGAGCCTAGCGAGATAAGCGCTAATAGTCCGAGCATAGACC

8120

BGT35\_T01b

BGT35\_T01b-pDONR221

L N T A R C G M F S S D R S I R D Y Q A R I W  
 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971

5' CAGGCAAACGCTAGGACCCAGCTTTCTTGTACAAAGTGGTTGATatcggatccgaattcgagctccgctc  
 3' GTCCGTTTTGCGATCCTGGGTCGAAAGAACATGTTTCACCAACTatagcctaggcttaagctcgaggcag

8190

BamHI EcoRI EcoICRI  
 SacI Sall



BGT35\_T01b-pDONR221

Q A K R .  
 972 973 974 975 976

5' gacaagcttgcgccgcactcgagcaccaccaccaccactgagatccggctgctaacaaagcccgaa  
 3' ctggtcgaacgcgcgctgagctcgtggtggtggtggtgactctaggccgacgattgtttcgggctt

8260

NotI EagI PspXI  
 XhoI Aval BmeT110I

5' aggaagctgagttggctgctgccaccgctgagcaataactagcataacccttggggcctctaacgggt  
 3' tccttcgactcaaccgacgacggtggcgactcgttattgatcgattggggaaccccgagatttgcca

8330

T7 Terminator

5' cttgaggggttttttgctgaaaggaggaactatatccggat  
 3' gaactccccaaaaaacgactttcctccttgatataggccta

8371

T7 Terminator