

o
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 o
 3' aaacgcggttaagctaccacagggccttagagctgcgagaggggaatacgcctgaggacgtaatccttcgtcgg

EcoNI

SphI

o
 5' cagtagtaggttgaggccgttgagcaccgcccgcgaaggaatggtgcatgcaaggagatggcgcccaac 5040
 o
 3' gtcatcatccaactccggcaactcgtggcggcggcggttccttaccacgtacgttcctctaccgcggttg
 o
 5' agtcccccgccacggggcctgccaccatacccacgccgaacaagcgcctcatgagcccgaagtggcgag 5110
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SgrAI

o
 5' cccgatcttccccatcggtgatgtcggcgatataggcgccagcaaccgcacctgtggcgccggtgatgcc 5180
 o
 3' gggctagaaggggtagccactacagccgctatatccgcggtcgttggcgtggacaccgcgccactacgg

BglII

o
 5' ggccacgatg cgtccggcgtagaggatcgagatctcgatcccgcgaaattaatacgactcactatagggg 5250
 o
 3' ccggtgctacgcaggccgc atctccttagctctagagctagggcgctttaattatgctgagtgatatcccc

———— T7 Promoter ————

XbaI

BamI

o
 5' aattgtgagcggataacaattcccctctagaataattttgtttaactttaagaaggagatataccatgg 5320
 o
 3' ttaacactcgcctattgttaaggggagatctttattaaacaaattgaaattcttcctctatatggtacc

———— Lac O ————

M
|
1

BamI'

NdeI

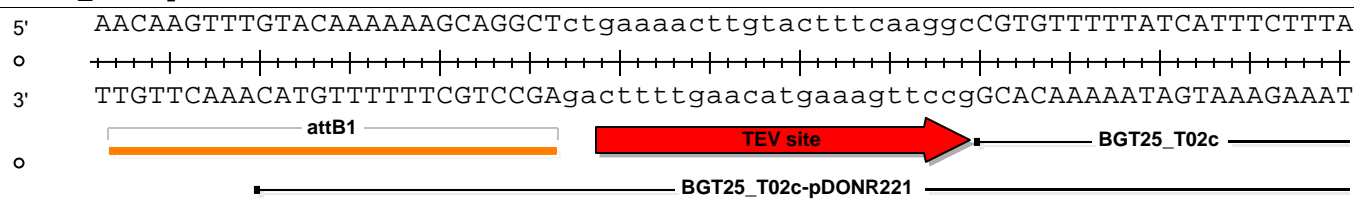
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His10-tag

X-factor

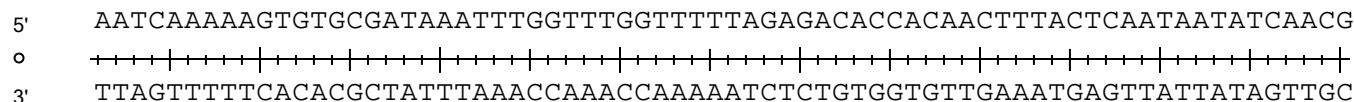
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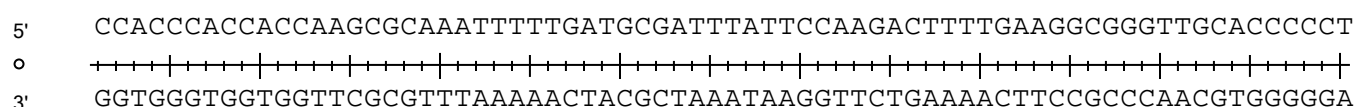
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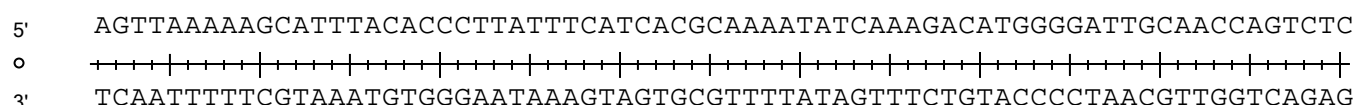
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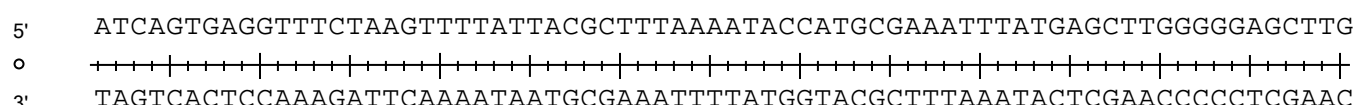
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5670

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



5740

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

EcoICRI
Sacl

5' GGTGCTATGCGAGCCATTATTCGTTGTGGCAAAAATGCATAGAGCTCAATGAAGCGATCTGTATTTTAGA
3' CCACGATACGCTCGGTAATAAGCAACACCGTTTTTTACGTATCTCGAGTTACTTCGCTAGACATAAAATCT

5810

BGT25_T02c

BGT25_T02c-pDONR221

G C Y A S H Y S L W Q K C I E L N E A I C I L 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
5' AGACGATATAACCTTGAAAGAGGATTTTAAAGAGGGCTTGGATTTTTTAGAAAAACACATCCAAGAGTTA
3' TCTGCTATATTGGAACCTTCTCCTAAAATTTCTCCCGAACCTAAAAAATCTTTTGTGTAGGTTCTCAAT

5880

BGT25_T02c

BGT25_T02c-pDONR221

D D I T L K E D F K E G L D F L E K H I Q E L
166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188
5' GGCTATGCGCGTTTGATGCATTTATTGTATGATGCCAGCGTGAAAAGTGAGCCTTTAAACCATAAAAACC
3' CCGATACGCGCAAACCTACGTAAATAACATACTACGGTCGCACTTTTCACTCGGAAATTTGGTATTTTTGG

5950

BGT25_T02c

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G Y A R L M H L L Y D A S V K S E P L N H K N
189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211
5' AAGAGATAACAAGAGCGTGTGGGGATCATTAAGCTTATAGCCATGGGGTGGGGACGCAAGGCTATGTGAT
3' TTCTCTATGTTCTCGCACACCCTAGTAATTTTCGAATATCGGTACCCACCCCTGCGTTCCGATACTACTA

6020

BGT25_T02c

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Q E I Q E R V G I I K A Y S H G V G T Q G Y V I
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' CACGCCCAAGATTGCCAAAGTTTTTTTGAACACAGCCGAAAATGGGTTGTTCTGTGGATACGATAATG
3' GTGCGGGTTCTAACGGTTTCAAAAAAATTTGTGTGCGCTTTTACCCAACAAGGACACCTATGCTATTAC

6090

BGT25_T02c

BGT25_T02c-pDONR221

T P K I A K V F L K H S R K W V V P V D T I M
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BGT25_T02c-pET16-DEST

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 3' CTGCGATGAAAAATAGGTACCGCACTTTTGTAGACCACAATGTTGGAAAACACTAGCGACTACTACTCGTTT

6160

BGT25_T02c

BGT25_T02c-pDONR221

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

5' TCTCTACGATAGCGCGAAAAGAAGAACCTATAGCCCTAAAATCGCTCTAATGAGAGAACTCCATTTTAA
 3' AGAGATGCTATCGCGCTTTTCTTCTTGGGATATCGGGATTTTAGCGAGATTACTCTCTTGAGGTAAAATT

6230

BGT25_T02c

BGT25_T02c-pDONR221

I S T I A R K E E P Y S P K I A L M R E L H F K
 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' ATTTTTGAAATGGTGGCAGTTTGTATAGGACCCAGCTTCTTGTACAAAGTGGTTGATtcgaggatccgg
 3' TAAAACTTTACCACCGTCAAACATATCCTGGGTCGAAAGAACATGTTTCACCAACTAagctcctaggcc

6300

BamHI

BGT25_T02c

attB2

BGT25_T02c-pDONR221

F L K W W Q F V
 306 307 308 309 310 311 312 313 314

5' ctgctaacaaagcccgaaaggaagctgagttggctgctgccaccgctgagcaataactagcataaccct
 3' gacgattgtttcgggctttccttcgactcaaccgacgacggtggcgactcgttattgatcgtattgggga

6370

BlnI

T7 Terminator

5' tggggcctctaaacgggtcctgaggggttttttgctgaaaggaggaactatatccggatatcccgcaaga
 3' accccggagatttgcccagaactccccaaaaacgactttcctccttgatataggcctatagggcggttct

6440

T7 Terminator

5' ggcccggcagtagccgcataaccaagcctatgcctacagcatccagggtgacggtgccgaggatgacgat
 3' ccgggcccgtcatggccgtattggttcggatacggatgtcgtaggtcccactgccacggctcctactgcta

6510

5' gagcgcattgttagatttcatacacggtgctgactgcgtagcaatttaactgtgataaactaccgcat
 3' ctgcgtaacaatctaaagtatgtgccacggactgacgcaatcgtaaattgacactatttgatggcgta

6580

BGT25_T02c-pET16-DEST

o
5' taaagcttatcgatgataagctgtcaaacaatgagaa
o
3' atttcgaatagctactattcgacagtttgtactctt
o

ClaI

EcoRI

6616