

Additional file 3. Expression of *Ipomoea* chloroplastic genome

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*****format explanation*****
>SeqID
col2: normalized expression abundance; col8: SeqID; col9: SeqLength; col10:uniref50 proteinID; col11:uniref50 protein SeqLength; col12: blast result;
*****Hit in genome *****
col1: SeqID; col2: SeqLength; col3: genome ID; col4: genome SeqLength; col5: blast result
*****Hit in annotated cds*****
cdsID
col1: SeqID; col2: SeqLength; col3: cds ID; col4: cds SeqLength; col5: blast result
annotation for cds
//
*****
>ABCDEF_29648
Normal: 0      8      0      17      12      58      ABCDEF_29648      383      UniRef50_Q9MTL3      517      80.95      126      24      0      378      1      375      500      2e-66      217

*****Hit in genome EU118126*****
ABCDEF_29648 383 EU118126 162046 100.00 383 0 0 1 383 60853 60471 0.0 759
*****Hit in cds accD*****
accD
ABCDEF_29648 383 accD 1530 100.00 383 0 0 1 383 1487 1105 0.0 759
codon_start=1 transl_table=11 product="acetyl-CoA carboxylase carboxyltransferase beta protein_id="ABV02357.1" 59366..60895
//

>ABCDEF_81864
Normal: 0      0      0      0      0      14      No annotation
*****Hit in genome EU118126*****
ABCDEF_81864 254 EU118126 162046 100.00 254 0 0 1 254 29454 29707 7e-145 504
*****no hit in cds*****
//

>ABCDEF_50365
Normal: 0      11      0      0      0      52      ABCDEF_50365      442      UniRef50_Q49CB5      1815      85.04      127      18      1      382      2      1324      1449      3e-64      220

*****Hit in genome EU118126*****
ABCDEF_50365 442 EU118126 162046 100.00 440 0 0 3 442 93804 93365 0.0 872
ABCDEF_50365 442 EU118126 162046 100.00 440 0 0 3 442 156415 156854 0.0 872
ABCDEF_50365 442 EU118126 162046 96.55 29 1 0 399 427 93366 93338 6e-08 50.1
ABCDEF_50365 442 EU118126 162046 96.55 29 1 0 399 427 156853 156881 6e-08 50.1
ABCDEF_50365 442 EU118126 162046 96.15 26 1 0 395 420 93388 93363 4e-06 44.1
ABCDEF_50365 442 EU118126 162046 96.15 26 1 0 395 420 156831 156856 4e-06 44.1
*****Hit in cds ycf2*****
ycf2
ABCDEF_50365 442 ycf2 6594 100.00 440 0 0 3 442 5199 4760 0.0 872
ABCDEF_50365 442 ycf2 6594 96.55 29 1 0 399 427 4761 4733 3e-08 50.1
ABCDEF_50365 442 ycf2 6594 96.15 26 1 0 395 420 4783 4758 2e-06 44.1
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" complement(155019..161612)
//

>ABCDEF_9087
Normal: 0      11      0      0      0      24      ABCDEF_9087      280      UniRef50_Q9XQV2      776      52.38      84      39      1      32      280      278      361      1e-11      66.2
*****Hit in genome EU118126*****
ABCDEF_9087 280 EU118126 162046 100.00 280 0 0 1 280 40532 40253 3e-160 555
ABCDEF_9087 280 EU118126 162046 88.31 77 9 0 188 264 42569 42493 1e-17 81.8
*****Hit in cds psaB*****
psaB
ABCDEF_9087 280 psaB 2205 100.00 280 0 0 1 280 619 898 1e-160 555
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A2" protein_id="ABV02347.1" complement(38945..41149)
//

>ABCDEF_39804
Normal: 16      0      0      5      17      60      No annotation
*****Hit in genome EU118126*****
ABCDEF_39804 467 EU118126 162046 100.00 467 0 0 1 467 130501 130035 0.0 926
*****Hit in cds ndhA*****
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ndhA
ABCDEF_39804 467 ndhA 2532 100.00 467 0 0 1 467 1150 1616 0.0 926
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 1" protein_id="ABV02406.1" complement(129118..131649)
//

>ABCDEF_82407
Normal: 0 0 0 0 0 14 ABCDEF_82407 214 UniRef50_Q9GVD0 164 65.71 35 12 0 102 206 6 40 4e-08 52.4
*****Hit in genome EU118126*****
ABCDEF_82407 214 EU118126 162046 99.07 214 0 1 1 214 63262 63473 2e-114 402
*****Hit in cds cemA*****
cemA
ABCDEF_82407 214 cemA 690 100.00 123 0 0 92 214 5 127 5e-67 244
codon_start=1 transl_table=11 product="chloroplast envelope membrane protein" protein_id="ABV02360.1" 63346..64035
//

>ABCDEF_39040
Normal: 0 9 10 0 10 70 ABCDEF_39040 445 UniRef50_P56768 37 90.32 31 3 0 256 164 6 36 2e-10 58.9
*****Hit in genome EU118126*****
ABCDEF_39040 445 EU118126 162046 99.77 439 1 0 1 439 61891 61453 0.0 862
*****Hit in cds psaI*****
psaI
ABCDEF_39040 445 psaI 102 99.02 102 1 0 157 258 102 1 9e-52 194
codon_start=1 transl_table=11 product="photosystem I subunit VIII" protein_id="ABV02358.1" 61633..61734
//

>ABCDEF_83105
Normal: 5 11 0 0 0 40 ABCDEF_83105 432 UniRef50_Q9XQV2 776 44.37 142 70 2 6 431 490 622 1e-28 117
*****Hit in genome EU118126*****
ABCDEF_83105 432 EU118126 162046 100.00 432 0 0 1 432 42082 41651 0.0 856
*****Hit in cds psaA*****
psaA
ABCDEF_83105 432 psaA 2253 100.00 432 0 0 1 432 1347 1778 0.0 856
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A1" protein_id="ABV02348.1" complement(41175..43427)
//

>ABCDEF_9003
Normal: 0 9 8 0 0 20 ABCDEF_9003 447 UniRef50_Q32836 2110 67.31 52 17 0 284 439 416 467 1e-12 71.6
*****Hit in genome EU118126*****
ABCDEF_9003 447 EU118126 162046 100.00 447 0 0 1 447 90349 90795 0.0 886
ABCDEF_9003 447 EU118126 162046 100.00 447 0 0 1 447 159870 159424 0.0 886
*****Hit in cds ycf2*****
ycf2
ABCDEF_9003 447 ycf2 6594 100.00 447 0 0 1 447 1744 2190 0.0 886
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_81631
Normal: 0 0 0 0 0 64 No annotation
*****Hit in genome EU118126*****
ABCDEF_81631 249 EU118126 162046 100.00 249 0 0 1 249 77740 77492 7e-142 494
*****Hit in cds petB*****
petB
ABCDEF_81631 249 petB 1401 100.00 235 0 0 1 235 235 1 8e-134 466
codon_start=1 transl_table=11 product="cytochrome b6" protein_id="ABV02378.1" 77505..78905
//

>ABCDEF_85310
Normal: 0 0 0 0 0 10 ABCDEF_85310 201 UniRef50_Q7V510 776 72.73 66 18 0 201 4 70 135 4e-28 112
*****Hit in genome EU118126*****
ABCDEF_85310 201 EU118126 162046 100.00 201 0 0 1 201 43038 43238 2e-113 398
*****Hit in cds psaA*****
psaA
ABCDEF_85310 201 psaA 2253 100.00 201 0 0 1 201 391 191 1e-113 398
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A1" protein_id="ABV02348.1" complement(41175..43427)
//

>ABCDEF_82436
Normal: 0 9 0 0 0 162 No annotation
*****Hit in genome EU118126*****
ABCDEF_82436 331 EU118126 162046 100.00 331 0 0 1 331 8671 8341 0.0 656

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*****Hit in cds trnS-GCU*****
trnS-GCU
ABCDEF_82436 331 trnS-GCU 88 100.00 27 0 0 305 331 1 27 1e-09 54.0
complement(8279..8366)
//

>ABCDEF_88540
Normal: 0 0 0 0 0 12 ABCDEF_88540 229 UniRef50_Q9TL05 863 37.84 74 44 1 227 6 408 479 4e-08 55.5
*****Hit in genome EU118126*****
ABCDEF_88540 229 EU118126 162046 100.00 229 0 0 1 229 22387 22615 6e-130 454
*****Hit in cds rpoC1*****
rpoC1
ABCDEF_88540 229 rpoC1 2874 100.00 229 0 0 1 229 1911 1683 3e-130 454
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02339.1" complement(21423..24296)
//

>ABCDEF_81392
Normal: 0 0 0 0 0 20 No annotation
*****Hit in genome EU118126*****
ABCDEF_81392 254 EU118126 162046 100.00 254 0 0 1 254 30645 30898 7e-145 504
*****no hit in cds*****
//

>ABCDEF_69106
Normal: 0 0 0 0 0 5 No annotation
*****Hit in genome EU118126*****
ABCDEF_69106 196 EU118126 162046 99.49 196 1 0 1 196 62745 62940 6e-108 381
*****no hit in cds*****
//

>ABCDEF_5439
Normal: 0 13 0 0 0 28 ABCDEF_5439 314 UniRef50_Q0ZJ09 186 84.00 25 4 0 75 1 1 25 4e-06 48.5
*****Hit in genome EU118126*****
ABCDEF_5439 314 EU118126 162046 100.00 314 0 0 1 314 62252 61939 1e-180 622
*****Hit in cds ycf4*****
ycf4
ABCDEF_5439 314 ycf4 555 100.00 74 0 0 1 74 74 1 1e-37 147
codon_start=1 transl_table=11 product="photosystem I assembly protein ycf4" protein_id="ABV02359.1" 62178..62732
//

>ABCDEF_83642
Normal: 0 0 0 0 0 20 No annotation
*****Hit in genome EU118126*****
ABCDEF_83642 196 EU118126 162046 100.00 196 0 0 1 196 32327 32522 2e-110 389
*****no hit in cds*****
//

>ABCDEF_18922
Normal: 10 29 19 0 0 108 ABCDEF_18922 635 UniRef50_Q06R82 73 71.93 57 16 0 111 281 1 57 2e-08 55.1
*****Hit in genome EU118126*****
ABCDEF_18922 635 EU118126 162046 100.00 628 0 0 8 635 122368 122995 0.0 1245
*****Hit in cds rp132*****
rp132
ABCDEF_18922 635 rp132 174 100.00 174 0 0 112 285 1 174 5e-97 345
codon_start=1 transl_table=11 product="ribosomal protein L32" protein_id="ABV02399.1" 122471..122644
//

>ABCDEF_88972
Normal: 0 0 0 0 0 26 ABCDEF_88972 355 UniRef50_Q3AC82 140 39.77 88 52 1 2 265 30 116 7e-15 72.8
*****Hit in genome EU118126*****
ABCDEF_88972 355 EU118126 162046 100.00 355 0 0 1 355 128911 128557 0.0 704
*****Hit in cds ndhI*****
ndhI
ABCDEF_88972 355 ndhI 504 100.00 355 0 0 1 355 127 481 0.0 704
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit I" protein_id="ABV02405.1" complement(128533..129036)
//

>ABCDEF_86702
Normal: 0 0 0 0 0 28 ABCDEF_86702 389 UniRef50_Q49CB5 1815 43.31 127 41 2 381 1 883 978 3e-18 87.4
*****Hit in genome EU118126*****

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ABCDEF_86702 389 EU118126 162046 99.74 389 1 0 1 389 92344 91956 0.0 763
ABCDEF_86702 389 EU118126 162046 99.74 389 1 0 1 389 157875 158263 0.0 763
*****Hit in cds ycf2*****
ycf2
ABCDEF_86702 389 ycf2 6594 99.74 389 1 0 1 389 3739 3351 0.0 763
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_39039
Normal: 0 8 0 0 0 18 No annotation
*****Hit in genome EU118126*****
ABCDEF_39039 276 EU118126 162046 99.64 276 1 0 1 276 62030 61755 1e-155 539
*****no hit in cds*****
//

>ABCDEF_66272
Normal: 0 0 8 0 0 0 No annotation
*****Hit in genome EU118126*****
ABCDEF_66272 216 EU118126 162046 98.61 216 3 0 1 216 61943 61728 4e-115 404
*****no hit in cds*****
//

>ABCDEF_78964
Normal: 0 14 12 20 5 62 No annotation
*****Hit in genome EU118126*****
ABCDEF_78964 518 EU118126 162046 100.00 518 0 0 1 518 74545 75062 0.0 1027
*****Hit in cds psbB*****
psbB
ABCDEF_78964 518 psbB 1527 100.00 51 0 0 468 518 1 51 1e-23 101
codon_start=1 transl_table=11 product="photosystem II CP47 chlorophyll apoprotein" protein_id="ABV02374.1" 75011..76537
//

>ABCDEF_79735
Normal: 0 0 0 0 0 10 ABCDEF_79735 227 UniRef50_A4QM92 46 59.46 37 15 0 97 207 7 43 4e-08 51.2
*****Hit in genome EU118126*****
ABCDEF_79735 227 EU118126 162046 100.00 227 0 0 1 227 37824 38050 9e-129 450
ABCDEF_79735 227 EU118126 162046 96.30 27 1 0 181 207 9826 9852 5e-07 46.1
*****Hit in cds trnG-GCC*****
trnG-GCC
ABCDEF_79735 227 trnG-GCC 71 100.00 71 0 0 139 209 1 71 6e-36 141
37961..38031
//

>ABCDEF_49916
Normal: 0 26 37 20 7 266 ABCDEF_49916 560 UniRef50_Q8M9U2 315 55.32 141 55 4 5 415 178 314 1e-41 150
*****Hit in genome EU118126*****
ABCDEF_49916 560 EU118126 162046 100.00 560 0 0 1 560 124281 124840 0.0 1110
*****Hit in cds ccsA*****
ccsA
ABCDEF_49916 560 ccsA 954 100.00 434 0 0 1 434 521 954 0.0 860
codon_start=1 transl_table=11 product="cytochrome c heme attachment protein" protein_id="ABV02400.1" 123760..124713
//

>ABCDEF_85690
Normal: 0 11 0 0 0 48 ABCDEF_85690 344 UniRef50_Q9XQV2 776 44.25 113 52 2 344 9 333 435 2e-19 89.7
*****Hit in genome EU118126*****
ABCDEF_85690 344 EU118126 162046 100.00 344 0 0 1 344 39993 40336 0.0 682
ABCDEF_85690 344 EU118126 162046 86.76 68 9 0 277 344 42493 42560 3e-12 63.9
*****Hit in cds psaB*****
psaB
ABCDEF_85690 344 psaB 2205 100.00 344 0 0 1 344 1158 815 0.0 682
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A2" protein_id="ABV02347.1" complement(38945..41149)
//

>ABCDEF_33012
Normal: 0 0 0 0 0 46 ABCDEF_33012 435 UniRef50_Q9TJZ2 144 92.00 50 4 0 152 3 35 84 3e-23 96.3
*****Hit in genome EU118126*****
ABCDEF_33012 435 EU118126 162046 99.77 435 0 1 1 435 22858 23291 0.0 846
*****Hit in cds rpoC1*****
rpoC1

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ABCDEF_33012 435 rpoC1 2874 99.77 435 0 1 1 435 1440 1007 0.0 846
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02339.1" complement(21423..24296)
//

>ABCDEF_39022
Normal: 0 89 26 30 7 422 ABCDEF_39022 1115 UniRef50_Q7V4E4 563 52.43 309 146 1 3 926 194 502 2e-102 322
*****Hit in genome EU118126*****
ABCDEF_39022 1115 EU118126 162046 99.73 1114 3 0 2 1115 125996 124883 0.0 2185
*****Hit in cds ndhD*****
ndhD
ABCDEF_39022 1115 ndhD 1512 99.70 999 3 0 2 1000 514 1512 0.0 1957
exception="RNA editing" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 4" protein_id="ABV02401.1" complement(124997..126508)
//

>ABCDEF_85923
Normal: 0 0 0 0 0 18 ABCDEF_85923 385 UniRef50_Q9MUS6 668 72.66 128 35 0 2 385 421 548 1e-57 196
*****Hit in genome EU118126*****
ABCDEF_85923 385 EU118126 162046 100.00 385 0 0 1 385 22254 21870 0.0 763
*****Hit in cds rpoC1*****
rpoC1
ABCDEF_85923 385 rpoC1 2874 100.00 385 0 0 1 385 2044 2428 0.0 763
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02339.1" complement(21423..24296)
//

>ABCDEF_68080
Normal: 0 12 8 0 6 38 ABCDEF_68080 347 UniRef50_P56786 2294 49.67 153 29 4 319 2 157 308 6e-27 112
*****Hit in genome EU118126*****
ABCDEF_68080 347 EU118126 162046 100.00 329 0 0 1 329 89414 89086 0.0 652
ABCDEF_68080 347 EU118126 162046 100.00 329 0 0 1 329 160805 161133 0.0 652
*****Hit in cds ycf2*****
ycf2
ABCDEF_68080 347 ycf2 6594 100.00 329 0 0 1 329 809 481 0.0 652
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_23201
Normal: 0 0 8 0 0 14 ABCDEF_23201 299 UniRef50_Q85C71 1445 77.22 79 18 0 2 238 1304 1382 3e-32 126
*****Hit in genome EU118126*****
ABCDEF_23201 299 EU118126 162046 100.00 298 0 0 2 299 17480 17183 5e-171 591
*****Hit in cds rpoC2*****
rpoC2
ABCDEF_23201 299 rpoC2 4206 100.00 298 0 0 2 299 3782 4079 3e-171 591
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02338.1" complement(17055..21260)
//

>ABCDEF_43545
Normal: 0 49 0 0 0 114 ABCDEF_43545 438 UniRef50_P62090 81 100.00 81 0 0 271 29 1 81 1e-52 169
*****Hit in genome EU118126*****
ABCDEF_43545 438 EU118126 162046 100.00 438 0 0 1 438 126599 127036 0.0 868
*****Hit in cds psaC*****
psaC
ABCDEF_43545 438 psaC 246 100.00 246 0 0 27 272 246 1 4e-140 488
codon_start=1 transl_table=11 product="photosystem I subunit VII" protein_id="ABV02402.1" complement(126624..126869)
//

>ABCDEF_12433
Normal: 0 8 7 0 0 32 ABCDEF_12433 518 UniRef50_Q01923 1520 70.35 172 50 1 2 517 1179 1349 2e-74 250
*****Hit in genome EU118126*****
ABCDEF_12433 518 EU118126 162046 100.00 518 0 0 1 518 18099 17582 0.0 1027
*****Hit in cds rpoC2*****
rpoC2
ABCDEF_12433 518 rpoC2 4206 100.00 518 0 0 1 518 3163 3680 0.0 1027
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02338.1" complement(17055..21260)
//

>ABCDEF_82700
Normal: 0 0 0 0 0 30 ABCDEF_82700 373 UniRef50_Q01923 1520 86.40 125 15 2 1 372 158 281 6e-67 226
*****Hit in genome EU118126*****
ABCDEF_82700 373 EU118126 162046 100.00 373 0 0 1 373 20777 20405 0.0 739
*****Hit in cds rpoC2*****

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rpoC2
ABCDEF_82700 373 rpoC2 4206 100.00 373 0 0 1 373 485 857 0.0 739
codon_start=1 transl_table=11 product="RNA polymerase beta' subunit" protein_id="ABV02338.1" complement(17055..21260)
//

>ABCDEF_70241
Normal: 3 11 2 0 0 42 ABCDEF_70241 231 UniRef50_Q9T3G4 512 94.52 73 4 0 221 3 116 188 2e-40 145
*****Hit in genome EU118126*****
ABCDEF_70241 231 EU118126 162046 99.55 220 1 0 1 220 97785 98004 3e-122 428
ABCDEF_70241 231 EU118126 162046 99.55 220 1 0 1 220 152434 152215 3e-122 428
*****Hit in cds ndhB*****
ndhB
ABCDEF_70241 231 ndhB 2198 99.55 220 1 0 1 220 565 346 2e-122 428
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" protein_id="ABV02392.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" prot
//

>ABCDEF_32387
Normal: 9 52 41 68 0 212 ABCDEF_32387 749 UniRef50_Q7G6A4 341 88.89 63 7 0 236 48 19 81 2e-29 120
*****Hit in genome EU118126*****
ABCDEF_32387 749 EU118126 162046 100.00 749 0 0 1 749 75672 74924 0.0 1485
*****Hit in cds psbB*****
psbB
ABCDEF_32387 749 psbB 1527 100.00 661 0 0 1 661 661 1 0.0 1310
codon_start=1 transl_table=11 product="photosystem II CP47 chlorophyll apoprotein" protein_id="ABV02374.1" 75011..76537
//

>ABCDEF_12578
Normal: 0 13 12 0 0 50 ABCDEF_12578 377 UniRef50_Q49CB5 1815 39.37 127 40 3 1 372 340 432 3e-14 75.5
*****Hit in genome EU118126*****
ABCDEF_12578 377 EU118126 162046 100.00 377 0 0 1 377 90053 90429 0.0 747
ABCDEF_12578 377 EU118126 162046 100.00 377 0 0 1 377 160166 159790 0.0 747
*****Hit in cds ycf2*****
ycf2
ABCDEF_12578 377 ycf2 6594 100.00 377 0 0 1 377 1448 1824 0.0 747
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_81344
Normal: 0 0 0 0 0 42 ABCDEF_81344 272 UniRef50_Q1KXP9 53 90.62 32 3 0 97 2 8 39 5e-10 57.0
*****Hit in genome EU118126*****
ABCDEF_81344 272 EU118126 162046 100.00 272 0 0 1 272 100951 101222 1e-155 539
ABCDEF_81344 272 EU118126 162046 100.00 272 0 0 1 272 149268 148997 1e-155 539
*****Hit in cds ycf15*****
ycf15
ABCDEF_81344 272 ycf15 171 100.00 96 0 0 1 96 96 1 8e-51 190
codon_start=1 transl_table=11 product="hypothetical chloroplast RF15" protein_id="ABV02394.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF15" protein_id="ABV02410.1" 149172..
//

>ABCDEF_86953
Normal: 0 0 0 0 0 32 No annotation
*****Hit in genome EU118126*****
ABCDEF_86953 344 EU118126 162046 100.00 344 0 0 1 344 46778 47121 0.0 682
*****Hit in cds trnS-GGA*****
trnS-GGA
ABCDEF_86953 344 trnS-GGA 87 100.00 78 0 0 267 344 1 78 6e-40 155
47043..47129
//

>ABCDEF_9232
Normal: 12 0 7 0 0 26 ABCDEF_9232 407 UniRef50_Q9TKV3 169 43.48 115 58 3 407 69 18 127 8e-13 68.2
*****Hit in genome EU118126*****
ABCDEF_9232 407 EU118126 162046 99.00 402 1 1 6 407 127753 128151 0.0 761
*****Hit in cds ndhG*****
ndhG
ABCDEF_9232 407 ndhG 531 99.00 402 1 1 6 407 460 62 0.0 761
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 6" protein_id="ABV02404.1" complement(127681..128211)
//

>ABCDEF_87102
Normal: 0 0 0 0 0 34 No annotation

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*****Hit in genome EU118126*****
ABCDEF_87102 364 EU118126 162046 99.73 364 0 1 1 364 59327 58965 0.0 706
*****no hit in cds*****
//

>ABCDEF_80628
Normal: 0 9 0 0 0 72 No annotation
*****Hit in genome EU118126*****
ABCDEF_80628 278 EU118126 162046 100.00 278 0 0 1 278 53230 52953 4e-159 551
*****no hit in cds*****
//

>ABCDEF_86343
Normal: 9 0 0 0 0 76 No annotation
*****Hit in genome EU118126*****
ABCDEF_86343 215 EU118126 162046 100.00 215 0 0 1 215 58662 58876 1e-121 426
ABCDEF_86343 215 EU118126 162046 100.00 22 0 0 16 37 58698 58677 2e-06 44.1
*****no hit in cds*****
//

>ABCDEF_2037
Normal: 5 16 28 0 10 208 ABCDEF_2037 598 UniRef50_Q49CB5 1815 61.26 111 31 3 338 6 654 752 1e-32 132
*****Hit in genome EU118126*****
ABCDEF_2037 598 EU118126 162046 100.00 598 0 0 1 598 91506 90909 0.0 1185
ABCDEF_2037 598 EU118126 162046 100.00 598 0 0 1 598 158713 159310 0.0 1185
*****Hit in cds ycf2*****
ycf2
ABCDEF_2037 598 ycf2 6594 100.00 598 0 0 1 598 2901 2304 0.0 1185
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_9339
Normal: 0 0 8 0 0 26 ABCDEF_9339 295 UniRef50_Q85C71 1445 44.44 72 38 2 2 211 1358 1429 2e-07 54.3
*****Hit in genome EU118126*****
ABCDEF_9339 295 EU118126 162046 100.00 295 0 0 1 295 17319 17025 3e-169 585
*****Hit in cds rpoC2*****
rpoC2
ABCDEF_9339 295 rpoC2 4206 100.00 264 0 0 1 264 3943 4206 5e-151 523
codon_start=1 transl_table=11 product="RNA polymerase beta' subunit" protein_id="ABV02338.1" complement(17055..21260)
//

>ABCDEF_88476
Normal: 0 0 0 0 0 20 ABCDEF_88476 260 UniRef50_P56770 328 52.43 103 29 3 3 260 123 222 6e-10 60.1
*****Hit in genome EU118126*****
ABCDEF_88476 260 EU118126 162046 100.00 260 0 0 1 260 124115 124374 2e-148 515
*****Hit in cds ccsA*****
ccsA
ABCDEF_88476 260 ccsA 954 100.00 260 0 0 1 260 355 614 1e-148 515
codon_start=1 transl_table=11 product="cytochrome c heme attachment protein" protein_id="ABV02400.1" 123760..124713
//

>ABCDEF_18609
Normal: 27 64 71 0 15 266 ABCDEF_18609 480 UniRef50_Q8M9V7 334 39.22 153 91 1 479 27 182 334 3e-24 102
*****Hit in genome EU118126*****
ABCDEF_18609 480 EU118126 162046 100.00 480 0 0 1 480 80470 80949 0.0 952
*****Hit in cds rpoA*****
rpoA
ABCDEF_18609 480 rpoA 1014 100.00 471 0 0 10 480 1014 544 0.0 934
codon_start=1 transl_table=11 product="RNA polymerase alpha subunit" protein_id="ABV02380.1" complement(80478..81491)
//

>ABCDEF_84333
Normal: 0 9 0 0 0 50 ABCDEF_84333 275 UniRef50_Q32RY3 834 41.67 60 35 0 181 2 731 790 8e-06 49.3
*****Hit in genome EU118126*****
ABCDEF_84333 275 EU118126 162046 100.00 275 0 0 1 275 21563 21837 2e-157 545
*****Hit in cds rpoC1*****
rpoC1
ABCDEF_84333 275 rpoC1 2874 100.00 275 0 0 1 275 2735 2461 1e-157 545
codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02339.1" complement(21423..24296)
//

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>ABCDEF_12598
Normal: 0      23      0      0      0      58      ABCDEF_12598      561      UniRef50_Q9XQV2      776      44.04      193      87      4      5      553      585      766      1e-42      158
*****Hit in genome EU118126*****
ABCDEF_12598      561      EU118126      162046      99.82      561      1      0      1      561      41769      41209      0.0      1104
*****Hit in cds psaA*****
psaA
ABCDEF_12598      561      psaA      2253      99.82      561      1      0      1      561      1660      2220      0.0      1104
codon_start=1      transl_table=11      product="photosystem I P700 apoprotein A1"      protein_id="ABV02348.1"      complement(41175..43427)
//

>ABCDEF_29504
Normal: 0      13      4      0      10      47      ABCDEF_29504      253      UniRef50_Q60F87      154      89.47      57      6      0      176      6      1      57      1e-27      105
*****Hit in genome EU118126*****
ABCDEF_29504      253      EU118126      162046      100.00      239      0      0      3      241      80057      79819      7e-136      474
*****Hit in cds petD*****
petD
ABCDEF_29504      253      petD      1183      100.00      239      0      0      3      241      945      707      3e-136      474
codon_start=1      transl_table=11      product="cytochrome b6/f complex subunit IV"      protein_id="ABV02379.1"      79112..80294
//

>ABCDEF_81421
Normal: 0      9      0      0      0      32      ABCDEF_81421      304      UniRef50_Q9XQV2      776      49.44      89      45      0      6      272      20      108      7e-22      96.3
*****Hit in genome EU118126*****
ABCDEF_81421      304      EU118126      162046      100.00      304      0      0      1      304      41130      40827      1e-174      603
*****Hit in cds psaB*****
psaB
ABCDEF_81421      304      psaB      2205      100.00      304      0      0      1      304      21      324      7e-175      603
codon_start=1      transl_table=11      product="photosystem I P700 apoprotein A2"      protein_id="ABV02347.1"      complement(38945..41149)
//

>ABCDEF_78551
Normal: 12      0      0      0      0      66      ABCDEF_78551      701      UniRef50_Q01923      1520      78.11      233      51      0      3      701      293      525      3e-112      359
*****Hit in genome EU118126*****
ABCDEF_78551      701      EU118126      162046      100.00      701      0      0      1      701      20389      19689      0.0      1390
*****Hit in cds rpoC2*****
rpoC2
ABCDEF_78551      701      rpoC2      4206      100.00      701      0      0      1      701      873      1573      0.0      1390
codon_start=1      transl_table=11      product="RNA polymerase beta' subunit"      protein_id="ABV02338.1"      complement(17055..21260)
//

>ABCDEF_89928
Normal: 0      26      3      0      0      76      ABCDEF_89928      585      UniRef50_Q9MRV3      62      79.03      62      13      0      399      214      1      62      3e-18      82.0
*****Hit in genome EU118126*****
ABCDEF_89928      585      EU118126      162046      99.66      585      2      0      1      585      126110      126694      0.0      1144
*****Hit in cds ndhD*****
ndhD
ABCDEF_89928      585      ndhD      1512      99.75      397      1      0      1      397      400      4      0.0      779
exception="RNA editing"      codon_start=1      transl_table=11      product="NADH-plastoquinone oxidoreductase subunit 4"      protein_id="ABV02401.1"      complement(124997..126508)
//

>ABCDEF_75464
Normal: 5      31      0      22      20      366      ABCDEF_75464      258      UniRef50_Q8CM04      261      51.79      56      26      1      5      169      18      73      4e-11      49.3
*****Hit in genome EU118126*****
ABCDEF_75464      258      EU118126      162046      98.82      255      3      0      4      258      107691      107437      3e-138      482
ABCDEF_75464      258      EU118126      162046      98.82      255      3      0      4      258      142528      142782      3e-138      482
*****Hit in cds rrn23*****
rrn23
ABCDEF_75464      258      rrn23      2810      98.82      255      3      0      4      258      1964      1710      1e-138      482
complement(141681..144490)
//

>ABCDEF_53348
Normal: 0      0      0      0      0      52      ABCDEF_53348      284      UniRef50_Q85WY0      45      88.89      27      3      0      83      3      11      37      5e-08      51.6
*****Hit in genome EU118126*****
ABCDEF_53348      284      EU118126      162046      100.00      284      0      0      1      284      50246      50529      1e-162      563
*****Hit in cds trnF-GAA*****
trnF-GAA
ABCDEF_53348      284      trnF-GAA      73      100.00      73      0      0      12      84      1      73      4e-37      145
50256..50328

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//
>ABCDEF_39738
Normal: 0      28      0      2      0      42      ABCDEF_39738      528      UniRef50_Q9XQV2      776      33.48      230      95      8      1      528      82      307      6e-24      105
*****Hit in genome EU118126*****
ABCDEF_39738 528      EU118126      162046      99.81      528      1      0      1      528      40939      40412      0.0      1039
*****Hit in cds psaB*****
psaB
ABCDEF_39738 528      psaB      2205      99.81      528      1      0      1      528      212      739      0.0      1039
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A2" protein_id="ABV02347.1" complement(38945..41149)
//

>ABCDEF_89422
Normal: 0      0      0      0      0      34      ABCDEF_89422      251      UniRef50_P36387      205      78.26      23      5      0      214      146      1      23      9e-06      47.0
*****Hit in genome EU118126*****
ABCDEF_89422 251      EU118126      162046      100.00      251      0      0      1      251      74286      74536      5e-143      498
*****Hit in cds clpP*****
clpP
ABCDEF_89422 251      clpP      2028      100.00      215      0      0      1      215      215      1      7e-122      426
codon_start=1 transl_table=11 product="clp protease proteolytic subunit" protein_id="ABV02373.1" complement(72472..74499)
//

>ABCDEF_83431
Normal: 0      0      0      0      0      14      ABCDEF_83431      253      UniRef50_B9PBBS      74      78.26      46      5      2      8      130      29      74      3e-12      63.2
*****Hit in genome EU118126*****
ABCDEF_83431 253      EU118126      162046      100.00      253      0      0      1      253      95779      96031      3e-144      502
ABCDEF_83431 253      EU118126      162046      100.00      253      0      0      1      253      154440      154188      3e-144      502
*****no hit in cds*****
//

>ABCDEF_61184
Normal: 0      4      0      0      0      17      No annotation
*****Hit in genome EU118126*****
ABCDEF_61184 323      EU118126      162046      99.38      320      2      0      1      320      43919      43600      2e-179      618
*****no hit in cds*****
//

>ABCDEF_83738
Normal: 0      0      0      0      0      16      ABCDEF_83738      266      UniRef50_Q9XQV2      776      52.87      87      30      2      6      266      481      556      1e-16      80.5
*****Hit in genome EU118126*****
ABCDEF_83738 266      EU118126      162046      100.00      266      0      0      1      266      39879      39614      5e-152      527
*****Hit in cds psaB*****
psaB
ABCDEF_83738 266      psaB      2205      100.00      266      0      0      1      266      1272      1537      3e-152      527
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A2" protein_id="ABV02347.1" complement(38945..41149)
//

>ABCDEF_87004
Normal: 0      0      0      0      0      12      No annotation
*****Hit in genome EU118126*****
ABCDEF_87004 263      EU118126      162046      100.00      263      0      0      1      263      29289      29551      3e-150      521
*****no hit in cds*****
//

>ABCDEF_72501
Normal: 4      0      0      0      0      7      20      ABCDEF_72501      239      UniRef50_P56775      37      100.00      36      0      0      158      51      1      36      5e-16      72.0
*****Hit in genome EU118126*****
ABCDEF_72501 239      EU118126      162046      100.00      219      0      0      21      239      68481      68263      5e-124      434
*****Hit in cds petG*****
petG
ABCDEF_72501 239      petG      114      100.00      114      0      0      44      157      114      1      1e-61      226
codon_start=1 transl_table=11 product="cytochrome b6/f complex subunit V" protein_id="ABV02367.1" 68344..68457
//

>ABCDEF_84961
Normal: 0      14      0      0      0      28      ABCDEF_84961      451      UniRef50_Q9WWM4      101      60.20      98      39      0      294      1      1      98      9e-12      64.3
*****Hit in genome EU118126*****
ABCDEF_84961 451      EU118126      162046      100.00      451      0      0      1      451      127147      127597      0.0      894
*****Hit in cds ndhE*****
ndhE

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ABCDEF_84961 451 ndhE 306 100.00 295 0 0 1 295 295 1 2e-169 585
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 4L" protein_id="ABV02403.1" complement(127135..127440)
//

>ABCDEF_87310
Normal: 0 0 0 0 0 10 ABCDEF_87310 254 UniRef50_Q9LHB6 86 79.17 24 5 0 74 3 1 24 6e-06 46.2
*****Hit in genome EU118126*****
ABCDEF_87310 254 EU118126 162046 100.00 254 0 0 1 254 16768 17021 7e-145 504
*****Hit in cds rps2*****
rps2
ABCDEF_87310 254 rps2 711 100.00 75 0 0 1 75 75 1 3e-38 149
codon_start=1 transl_table=11 product="ribosomal protein S2" protein_id="ABV02337.1" complement(16131..16841)
//

>ABCDEF_72099
Normal: 0 8 0 10 0 43 ABCDEF_72099 247 UniRef50_Q9T3G4 512 97.53 81 2 0 245 3 182 262 5e-46 160
*****Hit in genome EU118126*****
ABCDEF_72099 247 EU118126 162046 98.31 236 4 0 12 247 97574 97809 1e-124 436
ABCDEF_72099 247 EU118126 162046 98.31 236 4 0 12 247 152645 152410 1e-124 436
*****Hit in cds ndhB*****
ndhB
ABCDEF_72099 247 ndhB 2198 98.31 236 4 0 12 247 776 541 7e-125 436
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" protein_id="ABV02392.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" prot
//

>ABCDEF_49973
Normal: 21 84 21 10 0 200 ABCDEF_49973 1181 UniRef50_Q7V511 749 41.31 426 192 9 11 1177 73 477 1e-83 278
*****Hit in genome EU118126*****
ABCDEF_49973 1181 EU118126 162046 99.92 1181 1 0 1 1181 43149 41969 0.0 2333
ABCDEF_49973 1181 EU118126 162046 88.31 77 9 0 581 657 40345 40269 5e-17 81.8
*****Hit in cds psaA*****
psaA
ABCDEF_49973 1181 psaA 2253 99.92 1181 1 0 1 1181 280 1460 0.0 2333
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A1" protein_id="ABV02348.1" complement(41175..43427)
//

>ABCDEF_18825
Normal: 0 11 7 25 0 52 ABCDEF_18825 386 UniRef50_Q8WJ12 336 56.36 55 23 1 372 208 135 188 9e-08 55.1
*****Hit in genome EU118126*****
ABCDEF_18825 386 EU118126 162046 100.00 386 0 0 1 386 60046 59661 0.0 765
*****Hit in cds accD*****
accD
ABCDEF_18825 386 accD 1530 100.00 386 0 0 1 386 680 295 0.0 765
codon_start=1 transl_table=11 product="acetyl-CoA carboxylase carboxyltransferase beta protein_id="ABV02357.1" 59366..60895
//

>ABCDEF_85855
Normal: 0 6 0 0 0 64 ABCDEF_85855 305 UniRef50_Q8HBW0 40 92.50 40 3 0 205 86 1 40 5e-19 80.9
*****Hit in genome EU118126*****
ABCDEF_85855 305 EU118126 162046 100.00 305 0 0 1 305 46009 46313 3e-175 605
*****Hit in cds ycf3*****
ycf3
ABCDEF_85855 305 ycf3 1999 100.00 206 0 0 1 206 206 1 2e-116 408
codon_start=1 transl_table=11 product="hypothetical chloroplast RF34" protein_id="ABV02349.1" complement(44215..46213)
//

>ABCDEF_74466
Normal: 0 0 0 0 7 6 ABCDEF_74466 276 UniRef50_Q9T3G4 512 98.63 73 1 0 3 221 253 325 2e-40 146 An
*****Hit in genome EU118126*****
ABCDEF_74466 276 EU118126 162046 99.21 252 2 0 24 275 96902 96651 7e-139 484
ABCDEF_74466 276 EU118126 162046 99.21 252 2 0 24 275 153317 153568 7e-139 484
ABCDEF_74466 276 EU118126 162046 100.00 23 0 0 1 23 97596 97574 6e-07 46.1
ABCDEF_74466 276 EU118126 162046 100.00 23 0 0 1 23 152623 152645 6e-07 46.1
*****Hit in cds ndhB*****
ndhB
ABCDEF_74466 276 ndhB 2198 99.21 252 2 0 24 275 1448 1699 4e-139 484
ABCDEF_74466 276 ndhB 2198 100.00 23 0 0 1 23 754 776 3e-07 46.1
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" protein_id="ABV02392.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" prot
//

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>ABCDEF_49598
Normal: 0 44 34 7 17 157 ABCDEF_49598 861 UniRef50_Q7V510 776 68.18 88 28 0 265 2 20 107 6e-35 140
*****Hit in genome EU118126*****
ABCDEF_49598 861 EU118126 162046 100.00 861 0 0 1 861 43124 43984 0.0 1707
*****Hit in cds psaA*****
psaA
ABCDEF_49598 861 psaA 2253 100.00 305 0 0 1 305 305 1 5e-175 605
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A1" protein_id="ABV02348.1" complement(41175..43427)
//

>ABCDEF_82650
Normal: 0 0 0 0 0 16 ABCDEF_82650 268 UniRef50_Q1ACE5 159 68.75 64 20 0 76 267 1 64 3e-27 104
*****Hit in genome EU118126*****
ABCDEF_82650 268 EU118126 162046 100.00 268 0 0 1 268 129111 128844 3e-153 531
*****Hit in cds ndhI*****
ndhI
ABCDEF_82650 268 ndhI 504 100.00 194 0 0 75 268 1 194 3e-109 385
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit I" protein_id="ABV02405.1" complement(128533..129036)
//

>ABCDEF_12288
Normal: 7 14 17 7 0 238 No annotation
*****Hit in genome EU118126*****
ABCDEF_12288 561 EU118126 162046 100.00 561 0 0 1 561 119601 119041 0.0 1112
*****no hit in cds*****
//

>ABCDEF_80335
Normal: 0 16 10 0 20 158 No annotation
*****Hit in genome EU118126*****
ABCDEF_80335 208 EU118126 162046 100.00 208 0 0 1 208 30825 31032 2e-117 412
*****no hit in cds*****
//

>ABCDEF_16731
Normal: 7495 35030 12253 30038 12766 103299 ABCDEF_16731 7557 UniRef50_Q5W7C9 265 95.28 127 6 0 1049 669 3 129 3e-60 218
*****Hit in genome EU118126*****
ABCDEF_16731 7557 EU118126 162046 99.91 7533 2 5 1 7528 101625 109157 0.0 1.484e+04
ABCDEF_16731 7557 EU118126 162046 99.91 7533 2 5 1 7528 148594 141062 0.0 1.484e+04
*****Hit in cds rrn23*****
rrn23
ABCDEF_16731 7557 rrn23 2810 99.96 2805 0 1 4105 6908 6 2810 0.0 5545
complement(141681..144490)
//

>ABCDEF_38059
Normal: 7449 20106 6978 6819 10389 50205 ABCDEF_38059 3486 UniRef50_Q9C5A9 559 69.43 471 139 3 3274 1868 83 550 0.0 651
*****Hit in genome EU118126*****
ABCDEF_38059 3486 EU118126 162046 99.97 3487 0 1 1 3486 53290 56776 0.0 6897
*****Hit in cds atpB*****
atpB
ABCDEF_38059 3486 atpB 1500 99.93 1500 0 1 1825 3323 1500 1 0.0 2958
codon_start=1 transl_table=11 product="ATP synthase CF1 beta subunit" protein_id="ABV02355.1" complement(55113..56612)
//

>ABCDEF_16495
Normal: 2566 5068 3021 1730 3374 31924 ABCDEF_16495 3492 UniRef50_Q06FK5 141 73.53 68 18 0 2830 2627 40 107 2e-19 94.0
*****Hit in genome EU118126*****
ABCDEF_16495 3492 EU118126 162046 99.97 3492 1 0 1 3492 73285 69794 0.0 6914
*****Hit in cds clpP*****
clpP
ABCDEF_16495 3492 clpP 2028 99.88 813 1 0 1 813 1216 2028 0.0 1604
codon_start=1 transl_table=11 product="clp protease proteolytic subunit" protein_id="ABV02373.1" complement(72472..74499)
//

>ABCDEF_20092
Normal: 1302 2835 2547 1678 1530 10122 ABCDEF_20092 5651 UniRef50_Q85UK5 166 77.11 166 38 0 3570 3073 1 166 8e-76 258
*****Hit in genome EU118126*****
ABCDEF_20092 5651 EU118126 162046 100.00 2910 0 0 2742 5651 85279 88188 0.0 5769
ABCDEF_20092 5651 EU118126 162046 100.00 2741 0 0 1 2741 81522 84262 0.0 5434

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*****Hit in cds rp12*****
rp12
ABCDEF_20092 5651 rp12 825 100.00 825 0 0 4431 5255 825 1 0.0 1635
codon_start=1 transl_table=11 product="ribosomal protein L2" protein_id="ABV02389.1" complement(86967..87791)
//

>ABCDEF_12303
Normal: 19 51 64 15 2 194 ABCDEF_12303 499 UniRef50_Q8M9V7 334 46.06 165 89 0 499 5 55 219 5e-48 166
*****Hit in genome EU118126*****
ABCDEF_12303 499 EU118126 162046 99.80 499 1 0 1 499 80831 81329 0.0 981
*****Hit in cds rpoA*****
rpoA
ABCDEF_12303 499 rpoA 1014 99.80 499 1 0 1 499 662 164 0.0 981
codon_start=1 transl_table=11 product="RNA polymerase alpha subunit" protein_id="ABV02380.1" complement(80478..81491)
//

>ABCDEF_41159
Normal: 801 1955 1009 763 1180 9265 ABCDEF_41159 1274 UniRef50_Q9M3M7 83 67.86 56 17 1 81 248 1 55 5e-10 62.8
*****Hit in genome EU118126*****
ABCDEF_41159 1274 EU118126 162046 100.00 1274 0 0 1 1274 32182 30909 0.0 2526
*****Hit in cds psbM*****
psbM
ABCDEF_41159 1274 psbM 105 100.00 105 0 0 998 1102 1 105 2e-55 208
codon_start=1 transl_table=11 product="photosystem II protein M" protein_id="ABV02342.1" complement(31080..31184)
//

>ABCDEF_8496
Normal: 36 56 34 15 35 1366 No annotation
*****Hit in genome EU118126*****
ABCDEF_8496 400 EU118126 162046 100.00 400 0 0 1 400 9861 9462 0.0 793
ABCDEF_8496 400 EU118126 162046 96.30 27 1 0 10 36 38030 38004 8e-07 46.1
*****Hit in cds trnG-UCC*****
trnG-UCC
ABCDEF_8496 400 trnG-UCC 48 100.00 48 0 0 8 55 48 1 5e-22 95.6
9806..9853
//

>ABCDEF_20094
Normal: 1042 2249 2087 1236 1206 8780 ABCDEF_20094 3800 UniRef50_Q85UK5 166 77.11 166 38 0 1718 1221 1 166 1e-76 258
*****Hit in genome EU118126*****
ABCDEF_20094 3800 EU118126 162046 99.97 3800 0 1 1 3800 84390 88188 0.0 7517
ABCDEF_20094 3800 EU118126 162046 88.89 63 7 0 383 445 63 1 6e-13 69.9
*****Hit in cds rp116*****
rp116
ABCDEF_20094 3800 rp116 1460 100.00 899 0 0 1 899 899 1 0.0 1782
codon_start=1 transl_table=11 product="ribosomal protein L16" protein_id="ABV02385.1" complement(83828..85287)
//

>ABCDEF_8255
Normal: 817 2782 1484 1071 1524 7908 ABCDEF_8255 877 UniRef50_P56769 44 93.18 44 3 0 460 329 1 44 8e-19 84.3
*****Hit in genome EU118126*****
ABCDEF_8255 877 EU118126 162046 99.89 877 1 0 1 877 69905 69029 0.0 1731
ABCDEF_8255 877 EU118126 162046 95.74 47 1 1 770 816 69067 69022 1e-13 69.9
*****Hit in cds psaJ*****
psaJ
ABCDEF_8255 877 psaJ 135 100.00 135 0 0 325 459 135 1 1e-73 268
codon_start=1 transl_table=11 product="photosystem I subunit IX" protein_id="ABV02368.1" complement(69446..69580)
//

>ABCDEF_73115
Normal: 10 31 34 31 4 312 ABCDEF_73115 353 UniRef50_Q32992 67 70.45 44 13 0 317 186 24 67 7e-11 60.5
*****Hit in genome EU118126*****
ABCDEF_73115 353 EU118126 162046 100.00 314 0 0 1 314 104859 105172 2e-180 622
ABCDEF_73115 353 EU118126 162046 100.00 314 0 0 1 314 145360 145047 2e-180 622
ABCDEF_73115 353 EU118126 162046 100.00 48 0 0 306 353 105089 105136 9e-22 95.6
ABCDEF_73115 353 EU118126 162046 100.00 48 0 0 306 353 145130 145083 9e-22 95.6
*****no hit in cds*****
//

>ABCDEF_12792

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Normal: 603 2221 985 577 888 6477 ABCDEF_12792 5038 UniRef50_Q93SW9 333 55.15 330 131 4 4773 3835 4 333 6e-111 363
*****Hit in genome EU118126*****
ABCDEF_12792 5038 EU118126 162046 99.96 5038 2 0 1 5038 69046 64009 0.0 9971
*****Hit in cds petA*****
petA
ABCDEF_12792 5038 petA 963 100.00 963 0 0 3831 4793 963 1 0.0 1909
codon_start=1 transl_table=11 product="cytochrome f" protein_id="ABV02361.1" 64253..65215
//

>ABCDEF_16712
Normal: 416 2590 1018 591 818 6251 ABCDEF_16712 4554 UniRef50_UPI00019842D3 358 92.50 160 10 1 1996 1517 20 177 5e-93 312
*****Hit in genome EU118126*****
ABCDEF_16712 4554 EU118126 162046 99.87 4554 3 2 1 4554 37906 33356 0.0 8966
*****Hit in cds psbC*****
psbC
ABCDEF_16712 4554 psbC 1422 100.00 1422 0 0 1099 2520 1422 1 0.0 2819
codon_start=1 transl_table=11 product="photosystem II CP43 chlorophyll apoprotein" protein_id="ABV02344.1" 35387..36808
//

>ABCDEF_25914
Normal: 27 74 44 27 41 1601 No annotation
*****Hit in genome EU118126*****
ABCDEF_25914 799 EU118126 162046 100.00 799 0 0 1 799 8633 9431 0.0 1584
*****no hit in cds*****
//

>ABCDEF_28404
Normal: 88 219 197 93 51 2649 ABCDEF_28404 726 UniRef50_A4QM70 49 64.29 42 15 0 221 96 3 44 2e-09 57.8
*****Hit in genome EU118126*****
ABCDEF_28404 726 EU118126 162046 100.00 724 0 0 1 724 49987 49264 0.0 1435
*****Hit in cds trnL-UAA*****
trnL-UAA
ABCDEF_28404 726 trnL-UAA 50 100.00 50 0 0 103 152 50 1 6e-23 99.6
49835..49884
//

>ABCDEF_6665
Normal: 363 1495 714 290 657 5105 ABCDEF_6665 3324 UniRef50_Q41JU8 545 56.20 468 197 1 1383 4 4 471 7e-167 512
*****Hit in genome EU118126*****
ABCDEF_6665 3324 EU118126 162046 100.00 1854 1 0 1 1854 10751 12604 0.0 3667
ABCDEF_6665 3324 EU118126 162046 99.93 1472 1 0 1853 3324 13300 14771 0.0 2910
*****Hit in cds atpA*****
atpA
ABCDEF_6665 3324 atpA 1524 99.93 1387 1 0 1 1387 1387 1 0.0 2742
codon_start=1 transl_table=11 product="ATP synthase CF1 alpha subunit" protein_id="ABV02333.1" complement(10613..12136)
//

>ABCDEF_11286
Normal: 1076 1004 1081 713 1065 4939 ABCDEF_11286 1177 UniRef50_Q9M3J5 1833 48.93 233 110 4 1060 374 1603 1830 6e-47 180
*****Hit in genome EU118126*****
ABCDEF_11286 1177 EU118126 162046 100.00 1177 0 0 1 1177 116977 115801 0.0 2333
ABCDEF_11286 1177 EU118126 162046 100.00 1177 0 0 1 1177 133242 134418 0.0 2333
ABCDEF_11286 1177 EU118126 162046 100.00 96 0 0 1082 1177 115848 115753 7e-50 190
ABCDEF_11286 1177 EU118126 162046 100.00 96 0 0 1082 1177 115872 115777 7e-50 190
ABCDEF_11286 1177 EU118126 162046 100.00 96 0 0 1082 1177 134347 134442 7e-50 190
ABCDEF_11286 1177 EU118126 162046 100.00 96 0 0 1082 1177 134371 134466 7e-50 190
ABCDEF_11286 1177 EU118126 162046 98.95 95 1 0 1082 1176 115824 115730 7e-47 180
ABCDEF_11286 1177 EU118126 162046 98.95 95 1 0 1082 1176 134395 134489 7e-47 180
ABCDEF_11286 1177 EU118126 162046 96.84 95 3 0 1082 1176 115800 115706 4e-42 165
ABCDEF_11286 1177 EU118126 162046 96.84 95 3 0 1082 1176 134419 134513 4e-42 165
ABCDEF_11286 1177 EU118126 162046 95.12 82 4 0 1082 1163 115776 115695 6e-32 131
ABCDEF_11286 1177 EU118126 162046 95.12 82 4 0 1082 1163 134443 134524 6e-32 131
*****Hit in cds ycf1*****
ycf1
ABCDEF_11286 1177 ycf1 6174 100.00 824 0 0 354 1177 6174 5351 0.0 1633
ABCDEF_11286 1177 ycf1 6174 100.00 96 0 0 1082 1177 5398 5303 4e-50 190
ABCDEF_11286 1177 ycf1 6174 100.00 96 0 0 1082 1177 5422 5327 4e-50 190
ABCDEF_11286 1177 ycf1 6174 98.95 95 1 0 1082 1176 5374 5280 3e-47 180
ABCDEF_11286 1177 ycf1 6174 96.84 95 3 0 1082 1176 5350 5256 2e-42 165
ABCDEF_11286 1177 ycf1 6174 95.12 82 4 0 1082 1163 5326 5245 3e-32 131

```

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codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//
>ABCDEF_38101
Normal: 193 868 327 479 300 4925 ABCDEF_38101 1900 UniRef50_Q95EV1 468 95.09 468 23 0 280 1683 1 468 0.0 895
*****Hit in genome EU118126*****
ABCDEF_38101 1900 EU118126 162046 100.00 1900 0 0 1 1900 56769 58668 0.0 3766
*****Hit in cds rbcL*****
rbcL
ABCDEF_38101 1900 rbcL 1443 100.00 1443 0 0 260 1702 1 1443 0.0 2861
codon_start=1 transl_table=11 product="ribulose 1,5-bisphosphate carboxylase/oxygenase protein_id="ABV02356.1" 57027..58469
//
>ABCDEF_52796
Normal: 50 123 106 50 28 1378 No annotation
*****Hit in genome EU118126*****
ABCDEF_52796 685 EU118126 162046 100.00 685 0 0 1 685 28404 29088 0.0 1358
*****Hit in cds trnC-GCA*****
trnC-GCA
ABCDEF_52796 685 trnC-GCA 72 100.00 72 0 0 397 468 1 72 4e-36 143
28799..28870
//
>ABCDEF_49719
Normal: 9 72 18 7 6 291 No annotation
*****Hit in genome EU118126*****
ABCDEF_49719 760 EU118126 162046 100.00 760 0 0 1 760 79666 78907 0.0 1507
*****Hit in cds petD*****
petD
ABCDEF_49719 760 petD 1183 100.00 554 0 0 1 554 554 1 0.0 1098
codon_start=1 transl_table=11 product="cytochrome b6/f complex subunit IV" protein_id="ABV02379.1" 79112..80294
//
>ABCDEF_44395
Normal: 938 420 1008 400 722 4098 ABCDEF_44395 2042 UniRef50_Q2L951 1892 47.35 245 113 7 1905 1207 14 254 2e-49 194
*****Hit in genome EU118126*****
ABCDEF_44395 2042 EU118126 162046 100.00 2035 0 0 8 2042 112373 110339 0.0 4034
ABCDEF_44395 2042 EU118126 162046 100.00 2035 0 0 8 2042 137846 139880 0.0 4034
ABCDEF_44395 2042 EU118126 162046 98.41 63 1 0 1 63 112785 112723 1e-27 117
ABCDEF_44395 2042 EU118126 162046 98.41 63 1 0 1 63 137434 137496 1e-27 117
ABCDEF_44395 2042 EU118126 162046 98.39 62 1 0 1 62 112830 112769 6e-27 115
ABCDEF_44395 2042 EU118126 162046 98.39 62 1 0 1 62 137389 137450 6e-27 115
ABCDEF_44395 2042 EU118126 162046 96.77 62 2 0 1 62 112650 112589 1e-24 107
ABCDEF_44395 2042 EU118126 162046 96.77 62 2 0 1 62 137569 137630 1e-24 107
ABCDEF_44395 2042 EU118126 162046 95.24 63 3 0 1 63 112560 112498 9e-23 101
ABCDEF_44395 2042 EU118126 162046 95.24 63 3 0 1 63 112695 112633 9e-23 101
ABCDEF_44395 2042 EU118126 162046 95.24 63 3 0 1 63 137524 137586 9e-23 101
ABCDEF_44395 2042 EU118126 162046 95.24 63 3 0 1 63 137659 137721 9e-23 101
ABCDEF_44395 2042 EU118126 162046 95.16 62 3 0 1 62 112425 112364 3e-22 99.6
ABCDEF_44395 2042 EU118126 162046 95.16 62 3 0 1 62 137794 137855 3e-22 99.6
ABCDEF_44395 2042 EU118126 162046 94.64 56 3 0 8 63 112598 112543 1e-18 87.7
ABCDEF_44395 2042 EU118126 162046 94.64 56 3 0 8 63 137621 137676 1e-18 87.7
ABCDEF_44395 2042 EU118126 162046 92.06 63 5 0 1 63 112470 112408 5e-18 85.7
ABCDEF_44395 2042 EU118126 162046 92.06 63 5 0 1 63 137749 137811 5e-18 85.7
ABCDEF_44395 2042 EU118126 162046 100.00 41 0 0 2002 2042 110243 110203 8e-17 81.8
ABCDEF_44395 2042 EU118126 162046 100.00 41 0 0 2002 2042 110311 110271 8e-17 81.8
ABCDEF_44395 2042 EU118126 162046 100.00 41 0 0 2002 2042 139908 139948 8e-17 81.8
ABCDEF_44395 2042 EU118126 162046 100.00 41 0 0 2002 2042 139976 140016 8e-17 81.8
ABCDEF_44395 2042 EU118126 162046 92.86 56 4 0 8 63 112508 112453 3e-16 79.8
ABCDEF_44395 2042 EU118126 162046 92.86 56 4 0 8 63 137711 137766 3e-16 79.8
ABCDEF_44395 2042 EU118126 162046 92.73 55 4 0 8 62 112733 112679 1e-15 77.8
ABCDEF_44395 2042 EU118126 162046 92.73 55 4 0 8 62 137486 137540 1e-15 77.8
*****Hit in cds ycf1*****
ycf1
ABCDEF_44395 2042 ycf1 6174 100.00 1923 0 0 8 1930 1923 1 0.0 3812
ABCDEF_44395 2042 ycf1 6174 98.41 63 1 0 1 63 2335 2273 8e-28 117
ABCDEF_44395 2042 ycf1 6174 98.39 62 1 0 1 62 2380 2319 3e-27 115
ABCDEF_44395 2042 ycf1 6174 96.77 62 2 0 1 62 2200 2139 7e-25 107
ABCDEF_44395 2042 ycf1 6174 95.24 63 3 0 1 63 2110 2048 4e-23 101
ABCDEF_44395 2042 ycf1 6174 95.24 63 3 0 1 63 2245 2183 4e-23 101

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ABCDEF_44395 2042 ycf1 6174 95.16 62 3 0 1 62 1975 1914 2e-22 99.6
ABCDEF_44395 2042 ycf1 6174 94.64 56 3 0 8 63 2148 2093 7e-19 87.7
ABCDEF_44395 2042 ycf1 6174 92.06 63 5 0 1 63 2020 1958 3e-18 85.7
ABCDEF_44395 2042 ycf1 6174 92.86 56 4 0 8 63 2058 2003 2e-16 79.8
ABCDEF_44395 2042 ycf1 6174 92.73 55 4 0 8 62 2283 2229 6e-16 77.8
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_25574
Normal: 39 42 28 7 51 280 No annotation
*****Hit in genome EU118126*****
ABCDEF_25574 396 EU118126 162046 100.00 396 0 0 1 396 122362 121967 0.0 785
*****no hit in cds*****
//

>ABCDEF_17969
Normal: 59 89 176 20 28 798 ABCDEF_17969 1479 UniRef50_Q85C71 1445 31.37 459 291 12 1440 76 493 931 2e-49 190
*****Hit in genome EU118126*****
ABCDEF_17969 1479 EU118126 162046 99.93 1479 1 0 1 1479 18333 19811 0.0 2924
*****Hit in cds rpoC2*****
rpoC2
ABCDEF_17969 1479 rpoC2 4206 99.93 1479 1 0 1 1479 2929 1451 0.0 2924
codon_start=1 transl_table=11 product="RNA polymerase beta' subunit" protein_id="ABV02338.1" complement(17055..21260)
//

>ABCDEF_16493
Normal: 285 690 423 311 279 3924 ABCDEF_16493 4972 UniRef50_Q9T3G4 512 96.14 259 10 0 2687 3463 1 259 1e-149 477
*****Hit in genome EU118126*****
ABCDEF_16493 4972 EU118126 162046 99.41 3882 21 2 1091 4972 99944 96065 0.0 7497
ABCDEF_16493 4972 EU118126 162046 99.41 3882 21 2 1091 4972 150275 154154 0.0 7497
ABCDEF_16493 4972 EU118126 162046 99.91 1090 1 0 1 1090 73285 72196 0.0 2153
*****Hit in cds ndhB*****
ndhB
ABCDEF_16493 4972 ndhB 2198 99.59 2198 9 0 2688 4885 1 2198 0.0 4286
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" protein_id="ABV02392.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" prot
//

>ABCDEF_883
Normal: 821 379 1182 687 918 3696 ABCDEF_883 1441 UniRef50_Q7YJS6 1828 49.67 457 194 13 141 1439 668 1112 6e-101 340
*****Hit in genome EU118126*****
ABCDEF_883 1441 EU118126 162046 99.65 1441 5 0 1 1441 112733 114173 0.0 2817
ABCDEF_883 1441 EU118126 162046 99.65 1441 5 0 1 1441 137486 136046 0.0 2817
ABCDEF_883 1441 EU118126 162046 99.00 100 1 0 1 100 112688 112787 8e-50 190
ABCDEF_883 1441 EU118126 162046 99.00 100 1 0 1 100 137531 137432 8e-50 190
ABCDEF_883 1441 EU118126 162046 95.92 98 4 0 3 100 112465 112562 2e-41 163
ABCDEF_883 1441 EU118126 162046 95.92 98 4 0 3 100 137754 137657 2e-41 163
ABCDEF_883 1441 EU118126 162046 95.00 100 5 0 1 100 112598 112697 3e-40 159
ABCDEF_883 1441 EU118126 162046 95.00 100 5 0 1 100 137621 137522 3e-40 159
ABCDEF_883 1441 EU118126 162046 93.88 98 6 0 3 100 112555 112652 1e-36 147
ABCDEF_883 1441 EU118126 162046 93.88 98 6 0 3 100 137664 137567 1e-36 147
ABCDEF_883 1441 EU118126 162046 93.00 100 7 0 1 100 112328 112427 2e-35 143
ABCDEF_883 1441 EU118126 162046 93.00 100 7 0 1 100 137891 137792 2e-35 143
ABCDEF_883 1441 EU118126 162046 92.00 100 8 0 1 100 112373 112472 4e-33 135
ABCDEF_883 1441 EU118126 162046 92.00 100 8 0 1 100 112508 112607 4e-33 135
ABCDEF_883 1441 EU118126 162046 92.00 100 8 0 1 100 137711 137612 4e-33 135
ABCDEF_883 1441 EU118126 162046 92.00 100 8 0 1 100 137846 137747 4e-33 135
ABCDEF_883 1441 EU118126 162046 91.84 98 8 0 3 100 112420 112517 7e-32 131
ABCDEF_883 1441 EU118126 162046 91.84 98 8 0 3 100 137799 137702 7e-32 131
ABCDEF_883 1441 EU118126 162046 90.82 98 9 0 3 100 112645 112742 2e-29 123
ABCDEF_883 1441 EU118126 162046 90.82 98 9 0 3 100 137574 137477 2e-29 123
ABCDEF_883 1441 EU118126 162046 96.92 65 2 0 36 100 112318 112382 2e-26 113
ABCDEF_883 1441 EU118126 162046 96.92 65 2 0 36 100 137901 137837 2e-26 113
*****Hit in cds ycf1*****
ycf1
ABCDEF_883 1441 ycf1 6174 99.65 1441 5 0 1 1441 2283 3723 0.0 2817
ABCDEF_883 1441 ycf1 6174 99.00 100 1 0 1 100 2238 2337 4e-50 190
ABCDEF_883 1441 ycf1 6174 95.92 98 4 0 3 100 2015 2112 1e-41 163
ABCDEF_883 1441 ycf1 6174 95.00 100 5 0 1 100 2148 2247 2e-40 159
ABCDEF_883 1441 ycf1 6174 93.88 98 6 0 3 100 2105 2202 6e-37 147
ABCDEF_883 1441 ycf1 6174 93.00 100 7 0 1 100 1878 1977 9e-36 143

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ABCDEF_883 1441 ycf1 6174 92.00 100 8 0 1 100 1923 2022 2e-33 135
ABCDEF_883 1441 ycf1 6174 92.00 100 8 0 1 100 2058 2157 2e-33 135
ABCDEF_883 1441 ycf1 6174 91.84 98 8 0 3 100 1970 2067 4e-32 131
ABCDEF_883 1441 ycf1 6174 90.82 98 9 0 3 100 2195 2292 9e-30 123
ABCDEF_883 1441 ycf1 6174 96.92 65 2 0 36 100 1868 1932 8e-27 113
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_45495
Normal: 21 52 59 12 15 418 ABCDEF_45495 1062 UniRef50_Q7YLQ7 212 58.64 220 54 4 892 320 1 212 6e-72 231
*****Hit in genome EU118126*****
ABCDEF_45495 1062 EU118126 162046 100.00 1062 0 0 1 1062 47127 48188 0.0 2105
*****Hit in cds rps4*****
rps4
ABCDEF_45495 1062 rps4 612 100.00 612 0 0 315 926 612 1 0.0 1213
codon_start=1 transl_table=11 product="ribosomal protein S4" protein_id="ABV02350.1" complement(47440..48051)
//

>ABCDEF_11857
Normal: 19 57 19 10 41 338 ABCDEF_11857 1027 UniRef50_Q1ACN8 29 86.21 29 4 0 941 855 1 29 3e-06 50.4
*****Hit in genome EU118126*****
ABCDEF_11857 1027 EU118126 162046 100.00 1027 0 0 1 1027 30739 29713 0.0 2036
*****Hit in cds petN*****
petN
ABCDEF_11857 1027 petN 90 100.00 90 0 0 851 940 90 1 1e-46 178
codon_start=1 transl_table=11 product="cytochrome b6/f complex subunit VIII" protein_id="ABV02341.1" 29799..29888
//

>ABCDEF_3422
Normal: 318 499 590 258 402 3225 ABCDEF_3422 1540 UniRef50_Q85FT1 158 64.00 75 27 0 332 556 43 117 1e-21 98.2
*****Hit in genome EU118126*****
ABCDEF_3422 1540 EU118126 162046 99.87 1540 2 0 1 1540 45694 44155 0.0 3037
ABCDEF_3422 1540 EU118126 162046 100.00 42 0 0 252 293 100025 99984 2e-17 83.8
ABCDEF_3422 1540 EU118126 162046 100.00 42 0 0 252 293 150194 150235 2e-17 83.8
ABCDEF_3422 1540 EU118126 162046 97.62 42 1 0 255 296 129735 129694 4e-15 75.8
*****Hit in cds ycf3*****
ycf3
ABCDEF_3422 1540 ycf3 1999 99.86 1479 2 0 1 1479 521 1999 0.0 2916
codon_start=1 transl_table=11 product="hypothetical chloroplast RF34" protein_id="ABV02349.1" complement(44215..46213)
//

>ABCDEF_19547
Normal: 19 39 15 7 15 215 ABCDEF_19547 709 UniRef50_Q8LYW3 370 36.11 108 56 4 350 42 232 331 3e-08 58.9
*****Hit in genome EU118126*****
ABCDEF_19547 709 EU118126 162046 100.00 709 0 0 1 709 80284 79576 0.0 1405
*****Hit in cds petD*****
petD
ABCDEF_19547 709 petD 1183 100.00 709 0 0 1 709 1172 464 0.0 1405
codon_start=1 transl_table=11 product="cytochrome b6/f complex subunit IV" protein_id="ABV02379.1" 79112..80294
//

>ABCDEF_45324
Normal: 48 336 114 128 114 1390 ABCDEF_45324 1361 UniRef50_Q9F721 428 40.35 228 130 4 471 1148 68 291 8e-50 182
*****Hit in genome EU118126*****
ABCDEF_45324 1361 EU118126 162046 99.85 1344 2 0 1 1344 77776 79119 0.0 2648
*****Hit in cds petB*****
petB
ABCDEF_45324 1361 petB 1401 99.82 1131 2 0 1 1131 271 1401 0.0 2226
codon_start=1 transl_table=11 product="cytochrome b6" protein_id="ABV02378.1" 77505..78905
//

>ABCDEF_22271
Normal: 9 29 50 32 12 260 No annotation
*****Hit in genome EU118126*****
ABCDEF_22271 667 EU118126 162046 99.85 667 1 0 1 667 5383 6049 0.0 1314
*****Hit in cds rps16*****
rps16
ABCDEF_22271 667 rps16 1071 99.85 667 1 0 1 667 782 116 0.0 1314
codon_start=1 transl_table=11 product="ribosomal protein S16" protein_id="ABV02330.1" complement(5093..6163)
//

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>ABCDEF_3420
Normal: 298      474      544      234      373      2770      ABCDEF_3420      1606      UniRef50_Q8HBW0      40      92.50      40      3      0      134      253      1      40      1e-16      81.3
*****Hit in genome EU118126*****
ABCDEF_3420 1606 EU118126 162046 99.93 1349 1 0 258 1606 45365 44017 0.0 2666
ABCDEF_3420 1606 EU118126 162046 100.00 258 0 0 1 258 46346 46089 2e-146 511
*****Hit in cds ycf3*****
ycf3
ABCDEF_3420 1606 ycf3 1999 99.91 1150 1 0 258 1407 850 1999 0.0 2272
ABCDEF_3420 1606 ycf3 1999 100.00 126 0 0 133 258 1 126 6e-68 250
codon_start=1 transl_table=11 product="hypothetical chloroplast RF34" protein_id="ABV02349.1" complement(44215..46213)
//

>ABCDEF_28359
Normal: 20      32      61      7      12      193      ABCDEF_28359      709      UniRef50_Q2JP53      159      50.00      76      38      0      31      258      1      76      7e-17      81.3
*****Hit in genome EU118126*****
ABCDEF_28359 709 EU118126 162046 100.00 639 0 0 71 709 5313 4675 0.0 1267
ABCDEF_28359 709 EU118126 162046 100.00 71 0 0 1 71 6193 6123 3e-35 141
*****Hit in cds rps16*****
rps16
ABCDEF_28359 709 rps16 1071 100.00 220 0 0 71 290 852 1071 2e-124 436
ABCDEF_28359 709 rps16 1071 100.00 42 0 0 30 71 1 42 4e-18 83.8
codon_start=1 transl_table=11 product="ribosomal protein S16" protein_id="ABV02330.1" complement(5093..6163)
//

>ABCDEF_7069
Normal: 286      578      544      284      330      2744      ABCDEF_7069      1935      UniRef50_Q49CB5      1815      53.47      202      70      6      1302      709      8      189      1e-39      163
*****Hit in genome EU118126*****
ABCDEF_7069 1935 EU118126 162046 100.00 1490 0 0 1 1490 89950 88461 0.0 2954
ABCDEF_7069 1935 EU118126 162046 100.00 1490 0 0 1 1490 160269 161758 0.0 2954
ABCDEF_7069 1935 EU118126 162046 98.99 297 3 0 1432 1728 88469 88173 2e-162 565
ABCDEF_7069 1935 EU118126 162046 98.99 297 3 0 1432 1728 161750 162046 2e-162 565
ABCDEF_7069 1935 EU118126 162046 100.00 206 0 0 1729 1934 1 206 3e-115 408
ABCDEF_7069 1935 EU118126 162046 89.39 66 7 0 1726 1791 84837 84772 5e-15 75.8
ABCDEF_7069 1935 EU118126 162046 88.64 44 0 1 1390 1428 88476 88433 1e-06 48.1
ABCDEF_7069 1935 EU118126 162046 88.64 44 0 1 1390 1428 161743 161786 1e-06 48.1
*****Hit in cds ycf2*****
ycf2
ABCDEF_7069 1935 ycf2 6594 100.00 1345 0 0 1 1345 1345 1 0.0 2666
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_45325
Normal: 18      88      28      57      12      329      ABCDEF_45325      995      UniRef50_Q9F721      428      41.78      225      125      4      45      713      71      291      6e-52      185
*****Hit in genome EU118126*****
ABCDEF_45325 995 EU118126 162046 99.77 857 2 0 53 909 78263 79119 0.0 1683
ABCDEF_45325 995 EU118126 162046 100.00 87 0 0 909 995 79819 79905 1e-44 172
ABCDEF_45325 995 EU118126 162046 100.00 53 0 0 1 53 77458 77510 3e-24 105
*****Hit in cds petB*****
petB
ABCDEF_45325 995 petB 1401 99.69 644 2 0 53 696 758 1401 0.0 1261
codon_start=1 transl_table=11 product="cytochrome b6" protein_id="ABV02378.1" 77505..78905
//

>ABCDEF_75073
Normal: 303      678      520      368      303      2730      ABCDEF_75073      1205      UniRef50_Q14E8S      171      74.56      169      43      0      670      164      1      169      2e-75      240
*****Hit in genome EU118126*****
ABCDEF_75073 1205 EU118126 162046 100.00 1175 0 0 31 1205 87014 88188 0.0 2329
ABCDEF_75073 1205 EU118126 162046 100.00 39 0 0 1 39 87035 87073 7e-16 77.8
*****Hit in cds rpl2*****
rpl2
ABCDEF_75073 1205 rpl2 825 100.00 779 0 0 31 809 779 1 0.0 1544
ABCDEF_75073 1205 rpl2 825 100.00 39 0 0 1 39 758 720 4e-16 77.8
codon_start=1 transl_table=11 product="ribosomal protein L2" protein_id="ABV02389.1" complement(86967..87791)
//

>ABCDEF_16494
Normal: 221      378      300      253      254      2640      ABCDEF_16494      2234      UniRef50_Q8D144      156      53.69      149      68      1      1381      1827      8      155      2e-47      171
*****Hit in genome EU118126*****
ABCDEF_16494 2234 EU118126 162046 100.00 1282 0 0 1 1282 100994 99713 0.0 2541

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ABCDEF_16494 2234 EU118126 162046 100.00 1282 0 0 1 1282 149225 150506 0.0 2541
ABCDEF_16494 2234 EU118126 162046 99.79 952 0 2 1283 2234 99176 98227 0.0 1855
ABCDEF_16494 2234 EU118126 162046 99.79 952 0 2 1283 2234 151043 151992 0.0 1855
ABCDEF_16494 2234 EU118126 162046 100.00 39 0 0 973 1011 45440 45402 1e-15 77.8
ABCDEF_16494 2234 EU118126 162046 97.44 39 1 0 973 1011 129735 129697 3e-13 69.9
*****Hit in cds rps7*****
rps7
ABCDEF_16494 2234 rps7 468 99.79 469 0 1 1363 1831 1 468 0.0 914
codon_start=1 transl_table=11 product="ribosomal protein S7" protein_id="ABV02393.1" codon_start=1 transl_table=11 product="ribosomal protein S7" protein_id="ABV02412.1" 151122..151589
//

>ABCDEF_42381
Normal: 66 295 208 106 133 1725 ABCDEF_42381 536 UniRef50_Q8YXD6 38 72.22 36 10 0 407 300 1 36 3e-10 58.9
*****Hit in genome EU118126*****
ABCDEF_42381 536 EU118126 162046 100.00 536 0 0 1 536 8440 7905 0.0 1063
ABCDEF_42381 536 EU118126 162046 100.00 28 0 0 134 161 47101 47128 1e-09 56.0
ABCDEF_42381 536 EU118126 162046 93.33 30 2 0 137 166 37081 37052 4e-06 44.1
*****Hit in cds psb1*****
psb1
ABCDEF_42381 536 psbI 111 100.00 111 0 0 296 406 111 1 2e-59 220
codon_start=1 transl_table=11 product="photosystem II protein I" protein_id="ABV02332.1" 8034..8144
//

>ABCDEF_6664
Normal: 187 684 345 99 363 2543 ABCDEF_6664 1899 UniRef50_Q8MA06 189 51.11 45 22 0 547 413 13 57 3e-07 56.6
*****Hit in genome EU118126*****
ABCDEF_6664 1899 EU118126 162046 99.89 1899 1 1 1 1899 12874 14771 0.0 3741
*****Hit in cds atpF*****
atpF
ABCDEF_6664 1899 atpF 1252 99.83 572 1 0 1 572 572 1 0.0 1126
codon_start=1 transl_table=11 product="ATP synthase CF0 subunit I" protein_id="ABV02334.1" complement(12193..13444)
//

>ABCDEF_32123
Normal: 18 37 70 43 15 382 No annotation
*****Hit in genome EU118126*****
ABCDEF_32123 600 EU118126 162046 100.00 600 0 0 1 600 6471 7070 0.0 1189
*****Hit in cds trnQ-UUG*****
trnQ-UUG
ABCDEF_32123 600 trnQ-UUG 72 100.00 47 0 0 554 600 72 26 3e-21 93.7
complement(7023..7094)
//

>ABCDEF_71831
Normal: 36 106 61 76 47 867 ABCDEF_71831 313 UniRef50_Q7Y618 75 93.75 64 4 0 269 78 12 75 9e-33 117
*****Hit in genome EU118126*****
ABCDEF_71831 313 EU118126 162046 98.64 295 4 0 1 295 99286 99580 1e-159 553
ABCDEF_71831 313 EU118126 162046 98.64 295 4 0 1 295 150933 150639 1e-159 553
*****Hit in cds rps12*****
rps12
ABCDEF_71831 313 rps12 908 98.64 295 4 0 1 295 772 478 6e-160 553
trans_splicing codon_start=1 transl_table=11 product="ribosomal protein S12" protein_id="ABV02372.1" trans_splicing codon_start=1 transl_table=11 product="ribosomal protein S12" protein_id="ABV024
//

>ABCDEF_36658
Normal: 19 134 27 26 53 453 ABCDEF_36658 518 UniRef50_Q5SD38 521 56.12 139 61 0 21 437 383 521 1e-46 166
*****Hit in genome EU118126*****
ABCDEF_36658 518 EU118126 162046 100.00 501 0 0 18 518 63613 64113 0.0 993
*****Hit in cds cemA*****
cemA
ABCDEF_36658 518 cemA 690 100.00 424 0 0 18 441 267 690 0.0 841
codon_start=1 transl_table=11 product="chloroplast envelope membrane protein" protein_id="ABV02360.1" 63346..64035
//

>ABCDEF_7068
Normal: 219 498 471 258 263 2376 ABCDEF_7068 877 UniRef50_Q49CB5 1815 64.79 71 14 2 240 28 8 67 7e-15 80.9
*****Hit in genome EU118126*****
ABCDEF_7068 877 EU118126 162046 96.22 741 3 2 1 741 88888 88173 0.0 1277
ABCDEF_7068 877 EU118126 162046 96.22 741 3 2 1 741 161331 162046 0.0 1277
ABCDEF_7068 877 EU118126 162046 100.00 136 0 0 742 877 1 136 7e-74 270

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ABCDEF_7068 877 EU118126 162046 89.39 66 7 0 739 804 84837 84772 2e-15 75.8
*****Hit in cds ycf2*****
ycf2
ABCDEF_7068 877 ycf2 6594 100.00 283 0 0 1 283 283 1 7e-162 561
codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02391.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF21" protein_id="ABV02414.1" compleme
//

>ABCDEF_68539
Normal: 27 93 46 57 33 616 ABCDEF_68539 395 UniRef50_Q85WW1 65 71.05 38 8 1 177 73 1 38 3e-08 53.5
*****Hit in genome EU118126*****
ABCDEF_68539 395 EU118126 162046 98.23 395 1 1 1 395 101711 102099 0.0 729
ABCDEF_68539 395 EU118126 162046 98.23 395 1 1 1 395 148508 148120 0.0 729
*****Hit in cds rrn16*****
rrn16
ABCDEF_68539 395 rrn16 1490 100.00 265 0 0 131 395 1 265 2e-151 525
complement(146894..148383)
//

>ABCDEF_16492
Normal: 214 479 250 161 193 2127 ABCDEF_16492 4424 UniRef50_Q9T3G4 512 96.14 259 10 0 2151 2927 1 259 9e-151 477
*****Hit in genome EU118126*****
ABCDEF_16492 4424 EU118126 162046 99.65 3102 9 2 1323 4424 99176 96077 0.0 6046
ABCDEF_16492 4424 EU118126 162046 99.65 3102 9 2 1323 4424 151043 154142 0.0 6046
ABCDEF_16492 4424 EU118126 162046 99.91 1090 1 0 1 1090 73285 72196 0.0 2153
ABCDEF_16492 4424 EU118126 162046 100.00 232 0 0 1091 1322 99944 99713 2e-130 460
ABCDEF_16492 4424 EU118126 162046 100.00 232 0 0 1091 1322 150275 150506 2e-130 460
*****Hit in cds ndhB*****
ndhB
ABCDEF_16492 4424 ndhB 2198 99.59 2198 9 0 2152 4349 1 2198 0.0 4286
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" protein_id="ABV02392.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 2" prot
//

>ABCDEF_8304
Normal: 23 147 40 31 61 449 ABCDEF_8304 721 UniRef50_Q5SSD38 521 49.77 217 105 2 2 640 305 521 5e-65 218
*****Hit in genome EU118126*****
ABCDEF_8304 721 EU118126 162046 100.00 721 0 0 1 721 63393 64113 0.0 1429
*****Hit in cds cemA*****
cemA
ABCDEF_8304 721 cemA 690 100.00 644 0 0 1 644 47 690 0.0 1277
codon_start=1 transl_table=11 product="chloroplast envelope membrane protein" protein_id="ABV02360.1" 63346..64035
//

>ABCDEF_6666
Normal: 131 564 209 94 213 1741 ABCDEF_6666 2588 UniRef50_Q4JUJ8 545 54.56 504 219 3 772 2256 4 506 7e-174 523
*****Hit in genome EU118126*****
ABCDEF_6666 2588 EU118126 162046 99.92 2589 1 1 1 2588 12905 10317 0.0 5109
*****Hit in cds atpA*****
atpA
ABCDEF_6666 2588 atpA 1524 99.93 1524 1 0 768 2291 1 1524 0.0 3013
codon_start=1 transl_table=11 product="ATP synthase CF1 alpha subunit" protein_id="ABV02333.1" complement(10613..12136)
//

>ABCDEF_3421
Normal: 39 52 52 27 44 490 ABCDEF_3421 679 UniRef50_Q3EC19 72 47.37 38 16 1 395 294 16 53 8e-08 40.8
*****Hit in genome EU118126*****
ABCDEF_3421 679 EU118126 162046 99.71 678 2 0 2 679 45438 46115 0.0 1328
*****Hit in cds ycf3*****
ycf3
ABCDEF_3421 679 ycf3 1999 99.71 678 2 0 2 679 777 100 0.0 1328
codon_start=1 transl_table=11 product="hypothetical chloroplast RF34" protein_id="ABV02349.1" complement(44215..46213)
//

>ABCDEF_38377
Normal: 88 122 179 139 94 1591 ABCDEF_38377 1963 UniRef50_Q8WKMI 505 64.30 507 174 4 239 1744 1 505 0.0 592
*****Hit in genome EU118126*****
ABCDEF_38377 1963 EU118126 162046 100.00 1963 0 0 1 1963 3869 1907 0.0 3891
*****Hit in cds matK*****
matK
ABCDEF_38377 1963 matK 1509 100.00 1509 0 0 238 1746 1 1509 0.0 2991
codon_start=1 transl_table=11 product="maturase K" protein_id="ABV02329.1" complement(2123..3631)

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//
>ABCDEF_52753
Normal: 23      67      35      25      15      269      ABCDEF_52753      813      UniRef50_Q9TKZ3      183      52.87      174      82      0      739      218      10      183      3e-43      153
*****Hit in genome EU118126*****
ABCDEF_52753 813      EU118126      162046      100.00      813      0      0      1      813      62946      62134      0.0      1612
*****Hit in cds ycf4*****
ycf4
ABCDEF_52753 813      ycf4      555      100.00      555      0      0      214      768      555      1      0.0      1100
codon_start=1 transl_table=11 product="photosystem I assembly protein ycf4" protein_id="ABV02359.1" 62178..62732
//

>ABCDEF_10925
Normal: 85      358      118      83      133      1450      ABCDEF_10925      2371      UniRef50_Q8DKZ4      237      68.04      194      62      0      1817      1236      8      201      1e-89      290
*****Hit in genome EU118126*****
ABCDEF_10925 2371      EU118126      162046      99.92      2371      1      1      1      2371      50426      52795      0.0      4676
*****Hit in cds ndhK*****
ndhK
ABCDEF_10925 2371      ndhK      708      99.86      708      1      0      1105      1812      708      1      0.0      1396
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit K" protein_id="ABV02352.1" complement (51529..52236)
//

>ABCDEF_11535
Normal: 112      176      203      162      159      No annotation
*****Hit in genome EU118126*****
ABCDEF_11535 853      EU118126      162046      100.00      853      0      0      1      853      4714      3862      0.0      1691
*****Hit in cds trnK-UUU*****
trnK-UUU
ABCDEF_11535 853      trnK-UUU      37      100.00      37      0      0      261      297      1      37      4e-15      73.8
complement (4417..4453)
//

>ABCDEF_18781
Normal: 56      184      86      55      84      854      ABCDEF_18781      605      UniRef50_Q9F1K9      46      73.68      38      10      0      281      168      9      46      9e-11      60.8
*****Hit in genome EU118126*****
ABCDEF_18781 605      EU118126      162046      99.83      605      1      0      1      605      7808      7204      0.0      1191
*****Hit in cds psbK*****
psbK
ABCDEF_18781 605      psbK      180      99.44      180      1      0      164      343      180      1      3e-98      349
codon_start=1 transl_table=11 product="photosystem II protein K" protein_id="ABV02331.1" 7465..7644
//

>ABCDEF_39919
Normal: 23      19      16      10      7      104      ABCDEF_39919      1053      UniRef50_Q8M9U5      670      48.72      351      129      7      1048      5      294      596      1e-92      299
*****Hit in genome EU118126*****
ABCDEF_39919 1053      EU118126      162046      100.00      1053      0      0      1      1053      119871      120923      0.0      2087
*****Hit in cds ndhF*****
ndhF
ABCDEF_39919 1053      ndhF      2133      100.00      1053      0      0      1      1053      1928      876      0.0      2087
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 5" protein_id="ABV02398.1" complement (119665..121797)
//

>ABCDEF_38301
Normal: 19      125      51      62      26      279      ABCDEF_38301      1691      UniRef50_Q7G6A4      341      81.37      322      17      1      1691      726      61      339      1e-176      511
*****Hit in genome EU118126*****
ABCDEF_38301 1691      EU118126      162046      100.00      1292      0      0      400      1691      76854      75563      0.0      2561
ABCDEF_38301 1691      EU118126      162046      100.00      405      0      0      1      405      77297      76893      0.0      803
*****Hit in cds psbB*****
psbB
ABCDEF_38301 1691      psbB      1527      100.00      976      0      0      716      1691      1527      552      0.0      1935
codon_start=1 transl_table=11 product="photosystem II CP47 chlorophyll apoprotein" protein_id="ABV02374.1" 75011..76537
//

>ABCDEF_76537
Normal: 4      10      18      11      9      58      ABCDEF_76537      304      UniRef50_B9PB42      188      93.10      29      2      0      303      217      160      188      2e-08      54.7
*****Hit in genome EU118126*****
ABCDEF_76537 304      EU118126      162046      100.00      304      0      0      1      304      130864      131167      1e-174      603
*****Hit in cds ndhA*****
ndhA
ABCDEF_76537 304      ndhA      2532      100.00      304      0      0      1      304      787      484      7e-175      603

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codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 1" protein_id="ABV02406.1" complement(129118..131649)
//

>ABCDEF_38300
Normal: 27 148 63 57 30 383 ABCDEF_38300 1730 UniRef50_Q7G6A4 341 81.50 319 16 1 1726 770 64 339 1e-174 507
*****Hit in genome EU118126*****
ABCDEF_38300 1730 EU118126 162046 100.00 1730 0 0 1 1730 77297 75568 0.0 3429
ABCDEF_38300 1730 EU118126 162046 95.24 42 2 0 395 436 76862 76903 1e-12 67.9
*****Hit in cds psbB*****
psbB
ABCDEF_38300 1730 psbB 1527 100.00 971 0 0 760 1730 1527 557 0.0 1925
codon_start=1 transl_table=11 product="photosystem II CP47 chlorophyll apoprotein" protein_id="ABV02374.1" 75011..76537
//

>ABCDEF_80369
Normal: 8 11 23 6 10 83 ABCDEF_80369 589 UniRef50_UPI000008E4AB 247 78.31 166 36 0 545 48 70 235 2e-88 268
*****Hit in genome EU118126*****
ABCDEF_80369 589 EU118126 162046 99.83 589 1 0 1 589 129110 129698 0.0 1160
*****Hit in cds ndhA*****
ndhA
ABCDEF_80369 589 ndhA 2532 99.83 580 1 0 10 589 2532 1953 0.0 1142
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 1" protein_id="ABV02406.1" complement(129118..131649)
//

>ABCDEF_29523
Normal: 5 21 17 10 12 68 ABCDEF_29523 638 UniRef50_Q95BNS 161 78.88 161 34 0 606 124 1 161 5e-89 268
*****Hit in genome EU118126*****
ABCDEF_29523 638 EU118126 162046 99.69 638 2 0 1 638 16080 16717 0.0 1249
*****Hit in cds rps2*****
rps2
ABCDEF_29523 638 rps2 711 99.66 586 2 0 53 638 711 126 0.0 1146
codon_start=1 transl_table=11 product="ribosomal protein S2" protein_id="ABV02337.1" complement(16131..16841)
//

>ABCDEF_88386
Normal: 16 46 61 12 25 156 ABCDEF_88386 267 UniRef50_A4GYQ3 56 72.73 44 8 1 228 109 12 55 3e-10 57.8
*****Hit in genome EU118126*****
ABCDEF_88386 267 EU118126 162046 100.00 267 0 0 1 267 33178 33444 1e-152 529
*****no hit in cds*****
//

>ABCDEF_3875
Normal: 220 415 350 114 284 1272 ABCDEF_3875 1527 UniRef50_Q9XQV2 776 69.09 220 64 2 1526 876 558 776 1e-95 315
*****Hit in genome EU118126*****
ABCDEF_3875 1527 EU118126 162046 99.74 1527 4 0 1 1527 38085 39611 0.0 2995
*****Hit in cds psaB*****
psaB
ABCDEF_3875 1527 psaB 2205 100.00 666 0 0 862 1527 2205 1540 0.0 1320
codon_start=1 transl_table=11 product="photosystem I P700 apoprotein A2" protein_id="ABV02347.1" complement(38945..41149)
//

>ABCDEF_42459
Normal: 34 113 55 27 48 318 ABCDEF_42459 1160 UniRef50_Q9LHB7 202 60.64 249 49 3 971 231 1 202 3e-75 240
*****Hit in genome EU118126*****
ABCDEF_42459 1160 EU118126 162046 99.91 1093 1 0 68 1160 14991 16083 0.0 2159
ABCDEF_42459 1160 EU118126 162046 100.00 68 0 0 1 68 14992 15059 3e-33 135
*****Hit in cds atpI*****
atpI
ABCDEF_42459 1160 atpI 744 99.87 744 1 0 229 972 744 1 0.0 1467
codon_start=1 transl_table=11 product="ATP synthase CF0 subunit IV" protein_id="ABV02336.1" complement(15151..15894)
//

>ABCDEF_32284
Normal: 16 18 41 53 23 188 ABCDEF_32284 531 UniRef50_Q9MTL3 517 65.14 175 48 1 1 525 244 405 1e-71 233
*****Hit in genome EU118126*****
ABCDEF_32284 531 EU118126 162046 100.00 531 0 0 1 531 60044 60574 0.0 1053
*****Hit in cds accD*****
accD
ABCDEF_32284 531 accD 1530 100.00 531 0 0 1 531 678 1208 0.0 1053
codon_start=1 transl_table=11 product="acetyl-CoA carboxylase carboxyltransferase beta protein_id="ABV02357.1" 59366..60895

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//
>ABCDEF_20093
Normal: 166 385 236 215 195 1095 ABCDEF_20093 1312 UniRef50_Q8YPI9 122 70.49 122 36 0 548 183 1 122 9e-55 186
*****Hit in genome EU118126*****
ABCDEF_20093 1312 EU118126 162046 100.00 1312 0 0 1 1312 83178 84489 0.0 2601
*****Hit in cds rpl16*****
rpl16
ABCDEF_20093 1312 rpl16 1460 100.00 661 0 0 652 1312 1460 800 0.0 1310
codon_start=1 transl_table=11 product="ribosomal protein L16" protein_id="ABV02385.1" complement(83828..85287)
//

>ABCDEF_21812
Normal: 90 188 169 91 100 952 ABCDEF_21812 1015 UniRef50_Q8M9U5 670 56.33 300 131 0 116 1015 1 300 9e-97 309
*****Hit in genome EU118126*****
ABCDEF_21812 1015 EU118126 162046 100.00 1015 0 0 1 1015 121912 120898 0.0 2012
*****Hit in cds ndhF*****
ndhF
ABCDEF_21812 1015 ndhF 2133 100.00 901 0 0 115 1015 1 901 0.0 1786
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 5" protein_id="ABV02398.1" complement(119665..121797)
//

>ABCDEF_75877
Normal: 57 41 73 27 48 259 ABCDEF_75877 388 UniRef50_A7Y3K2 2057 83.72 129 3 1 388 2 163 273 2e-51 183
*****Hit in genome EU118126*****
ABCDEF_75877 388 EU118126 162046 100.00 343 0 0 46 388 111280 110938 0.0 680
ABCDEF_75877 388 EU118126 162046 100.00 343 0 0 46 388 138939 139281 0.0 680
ABCDEF_75877 388 EU118126 162046 100.00 49 0 0 1 49 111271 111223 2e-22 97.6
ABCDEF_75877 388 EU118126 162046 100.00 49 0 0 1 49 138948 138996 2e-22 97.6
*****Hit in cds ycf1*****
ycf1
ABCDEF_75877 388 ycf1 6174 100.00 343 0 0 46 388 830 488 0.0 680
ABCDEF_75877 388 ycf1 6174 100.00 49 0 0 1 49 821 773 1e-22 97.6
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_45384
Normal: 336 108 370 261 367 940 ABCDEF_45384 956 UniRef50_Q68RU8 1919 54.69 320 127 7 15 947 1195 1505 7e-83 281
*****Hit in genome EU118126*****
ABCDEF_45384 956 EU118126 162046 100.00 956 0 0 1 956 114209 115164 0.0 1895
ABCDEF_45384 956 EU118126 162046 100.00 956 0 0 1 956 136010 135055 0.0 1895
ABCDEF_45384 956 EU118126 162046 92.00 75 6 0 873 947 115309 115383 4e-23 101
ABCDEF_45384 956 EU118126 162046 92.00 75 6 0 873 947 134910 134836 4e-23 101
ABCDEF_45384 956 EU118126 162046 89.29 84 9 0 873 956 115168 115251 2e-21 95.6
ABCDEF_45384 956 EU118126 162046 89.29 84 9 0 873 956 135051 134968 2e-21 95.6
*****Hit in cds ycf1*****
ycf1
ABCDEF_45384 956 ycf1 6174 100.00 956 0 0 1 956 3759 4714 0.0 1895
ABCDEF_45384 956 ycf1 6174 92.00 75 6 0 873 947 4859 4933 2e-23 101
ABCDEF_45384 956 ycf1 6174 89.29 84 9 0 873 956 4718 4801 1e-21 95.6
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_28360
Normal: 29 51 79 41 30 271 ABCDEF_28360 827 UniRef50_Q7TTU5 140 45.16 62 34 0 191 376 15 76 1e-08 58.5
*****Hit in genome EU118126*****
ABCDEF_28360 827 EU118126 162046 100.00 827 0 0 1 827 5501 4675 0.0 1639
*****Hit in cds rps16*****
rps16
ABCDEF_28360 827 rps16 1071 100.00 408 0 0 1 408 664 1071 0.0 809
codon_start=1 transl_table=11 product="ribosomal protein S16" protein_id="ABV02330.1" complement(5093..6163)
//

>ABCDEF_50169
Normal: 150 70 219 83 230 638 ABCDEF_50169 408 UniRef50_Q7YJS6 1828 50.00 112 49 2 11 346 1408 1512 1e-14 77.4
*****Hit in genome EU118126*****
ABCDEF_50169 408 EU118126 162046 100.00 408 0 0 1 408 115311 115718 0.0 809
ABCDEF_50169 408 EU118126 162046 100.00 408 0 0 1 408 134908 134501 0.0 809
ABCDEF_50169 408 EU118126 162046 91.78 73 6 0 1 73 115083 115155 3e-22 97.6
ABCDEF_50169 408 EU118126 162046 91.78 73 6 0 1 73 135136 135064 3e-22 97.6
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ABCDEF_50169 408 EU118126 162046 89.04 73 8 0 1 73 115170 115242 2e-17 81.8
ABCDEF_50169 408 EU118126 162046 89.04 73 8 0 1 73 135049 134977 2e-17 81.8
ABCDEF_50169 408 EU118126 162046 100.00 24 0 0 0 385 408 115719 115742 2e-07 48.1
ABCDEF_50169 408 EU118126 162046 100.00 24 0 0 0 385 408 134500 134477 2e-07 48.1
*****Hit in cds ycf1*****
ycf1
ABCDEF_50169 408 ycf1 6174 100.00 408 0 0 1 408 4861 5268 0.0 809
ABCDEF_50169 408 ycf1 6174 91.78 73 6 0 1 73 4633 4705 1e-22 97.6
ABCDEF_50169 408 ycf1 6174 89.04 73 8 0 1 73 4720 4792 8e-18 81.8
ABCDEF_50169 408 ycf1 6174 100.00 24 0 0 0 385 408 5269 5292 1e-07 48.1
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_77121
Normal: 9 20 14 22 11 78 ABCDEF_77121 330 UniRef50_Q2WGF1 133 42.25 71 40 1 217 8 1 71 5e-09 55.8
*****Hit in genome EU118126*****
ABCDEF_77121 330 EU118126 162046 99.69 327 0 1 1 326 82865 83191 0.0 632
*****Hit in cds rps8*****
rps8
ABCDEF_77121 330 rps8 405 100.00 218 0 0 1 218 218 1 2e-123 432
codon_start=1 transl_table=11 product="ribosomal protein S8" protein_id="ABV02383.1" complement(82677..83081)
//

>ABCDEF_14758
Normal: 88 402 107 159 138 762 ABCDEF_14758 1531 UniRef50_Q3BAR3 114 73.68 114 30 0 104 445 1 114 9e-41 149
*****Hit in genome EU118126*****
ABCDEF_14758 1531 EU118126 162046 100.00 1531 0 0 1 1531 477 2007 0.0 3035
*****Hit in cds psbA*****
psbA
ABCDEF_14758 1531 psbA 1062 100.00 1062 0 0 54 1115 1062 1 0.0 2105
codon_start=1 transl_table=11 product="photosystem II protein D1" protein_id="ABV02328.1" complement(529..1590)
//

>ABCDEF_5023
Normal: 6 11 10 6 10 39 ABCDEF_5023 391 UniRef50_UP1000008E4AB 247 83.78 111 18 0 340 8 70 180 9e-61 195
*****Hit in genome EU118126*****
ABCDEF_5023 391 EU118126 162046 99.74 391 1 0 1 391 129315 129705 0.0 767
*****Hit in cds ndhA*****
ndhA
ABCDEF_5023 391 ndhA 2532 99.74 391 1 0 1 391 2336 1946 0.0 767
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 1" protein_id="ABV02406.1" complement(129118..131649)
//

>ABCDEF_49556
Normal: 23 29 82 43 48 140 No annotation
*****Hit in genome EU118126*****
ABCDEF_49556 434 EU118126 162046 100.00 434 0 0 1 434 130786 130353 0.0 860
ABCDEF_49556 434 EU118126 162046 90.00 40 4 0 273 312 130475 130514 2e-07 48.1
*****Hit in cds ndhA*****
ndhA
ABCDEF_49556 434 ndhA 2532 100.00 434 0 0 1 434 865 1298 0.0 860
ABCDEF_49556 434 ndhA 2532 90.00 40 4 0 273 312 1176 1137 1e-07 48.1
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 1" protein_id="ABV02406.1" complement(129118..131649)
//

>ABCDEF_11521
Normal: 61 64 111 84 56 282 ABCDEF_11521 1090 UniRef50_Q9MUV8 229 55.00 160 71 1 609 1088 25 183 2e-47 168
*****Hit in genome EU118126*****
ABCDEF_11521 1090 EU118126 162046 100.00 899 0 0 1 899 74233 73335 0.0 1782
ABCDEF_11521 1090 EU118126 162046 99.48 191 1 0 900 1090 72723 72533 3e-104 371
*****Hit in cds clpP*****
clpP
ABCDEF_11521 1090 clpP 2028 100.00 899 0 0 1 899 268 1166 0.0 1782
ABCDEF_11521 1090 clpP 2028 99.48 191 1 0 900 1090 1778 1968 2e-104 371
codon_start=1 transl_table=11 product="clp protease proteolytic subunit" protein_id="ABV02373.1" complement(72472..74499)
//

>ABCDEF_68774
Normal: 6 2 10 9 6 10 ABCDEF_68774 363 UniRef50_Q979M3 369 48.72 78 40 0 27 260 208 285 2e-20 90.5
*****Hit in genome EU118126*****

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ABCDEF_68774 363 EU118126 162046 99.45 364 1 1 1 363 117993 118356 0.0 698
ABCDEF_68774 363 EU118126 162046 99.45 364 1 1 1 363 132226 131863 0.0 698
*****Hit in cds ndhH*****
ndhH
ABCDEF_68774 363 ndhH 1182 99.45 364 1 1 1 363 608 971 0.0 698
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" protein_id="ABV02397.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" prot
//

>ABCDEF_44500
Normal: 226 138 205 193 129 499 ABCDEF_44500 2484 UniRef50_Q979M3 369 43.83 381 194 1 575 1717 9 369 1e-100 325
*****Hit in genome EU118126*****
ABCDEF_44500 2484 EU118126 162046 99.72 2483 7 0 1 2483 133370 130888 0.0 4867
ABCDEF_44500 2484 EU118126 162046 99.95 2206 1 0 1 2206 116849 119054 0.0 4365
ABCDEF_44500 2484 EU118126 162046 100.00 31 0 0 2451 2481 130894 130924 9e-11 61.9
*****Hit in cds ndhH*****
ndhH
ABCDEF_44500 2484 ndhH 1182 99.92 1182 1 0 538 1719 1 1182 0.0 2335
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" protein_id="ABV02397.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" prot
//

>ABCDEF_44502
Normal: 125 74 101 121 85 319 ABCDEF_44502 1814 UniRef50_Q979M3 369 43.83 381 194 1 90 1232 9 369 4e-103 325
*****Hit in genome EU118126*****
ABCDEF_44502 1814 EU118126 162046 99.89 1814 2 0 1 1814 117334 119147 0.0 3580
ABCDEF_44502 1814 EU118126 162046 99.88 1721 2 0 1 1721 132885 131165 0.0 3396
*****Hit in cds ndhH*****
ndhH
ABCDEF_44502 1814 ndhH 1182 99.83 1182 2 0 53 1234 1 1182 0.0 2327
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" protein_id="ABV02397.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" prot
//

>ABCDEF_5112
Normal: 16 33 39 20 23 64 ABCDEF_5112 406 UniRef50_Q8M9V7 334 62.86 70 26 0 212 3 14 83 2e-26 107
*****Hit in genome EU118126*****
ABCDEF_5112 406 EU118126 162046 99.75 406 1 0 1 406 81241 81646 0.0 797
*****Hit in cds rpoA*****
rpoA
ABCDEF_5112 406 rpoA 1014 99.60 252 1 0 1 252 252 1 2e-141 492
codon_start=1 transl_table=11 product="RNA polymerase alpha subunit" protein_id="ABV02380.1" complement(80478..81491)
//

>ABCDEF_70133
Normal: 18 16 24 12 16 39 ABCDEF_70133 213 UniRef50_Q9BBN6 1793 54.24 59 25 1 35 211 13 69 2e-09 59.3
*****Hit in genome EU118126*****
ABCDEF_70133 213 EU118126 162046 99.53 213 1 0 1 213 110442 110654 4e-118 414
ABCDEF_70133 213 EU118126 162046 99.53 213 1 0 1 213 139777 139565 4e-118 414
*****Hit in cds ycf1*****
ycf1
ABCDEF_70133 213 ycf1 6174 100.00 204 0 0 10 213 1 204 2e-115 404
codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02395.1" codon_start=1 transl_table=11 product="hypothetical chloroplast RF19" protein_id="ABV02409.1" compleme
//

>ABCDEF_44501
Normal: 17 11 10 22 11 30 ABCDEF_44501 398 UniRef50_Q7NI12 393 82.11 123 22 0 28 396 8 130 4e-69 221
*****Hit in genome EU118126*****
ABCDEF_44501 398 EU118126 162046 100.00 361 0 0 38 398 117418 117778 0.0 716
ABCDEF_44501 398 EU118126 162046 100.00 361 0 0 38 398 132801 132441 0.0 716
*****Hit in cds ndhH*****
ndhH
ABCDEF_44501 398 ndhH 1182 100.00 361 0 0 38 398 33 393 0.0 716
codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" protein_id="ABV02397.1" codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 7" prot
//

*****[Undetected cds*****
>trnT-UGU complement(48509..48581)
>atpH codon_start=1 transl_table=11 product="ATP synthase CF0 subunit III" protein_id="ABV02335.1" complement(13795..14040)
>trnR-ACG complement(140802..140875)
>trnT-GGU 32984..33055

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>rpl20 codon_start=1 transl_table=11 product="ribosomal protein L20" protein_id="ABV02371.1" complement(71031..71381)
 >trnS-UGA complement(37056..37145)
 >trnfM-CAU complement(38302..38375)
 >rrn5 complement(141115..141235)
 >psbF codon_start=1 transl_table=11 product="photosystem II cytochrome b559 beta subunit" protein_id="ABV02364.1" complement(66515..66634)
 >psbE codon_start=1 transl_table=11 product="photosystem II cytochrome b559 alpha subunit" protein_id="ABV02365.1" complement(66647..66898)
 >trnL-UAG 123556..123635
 >trnV-UAC complement(54222..54259)
 >rps3 codon_start=1 transl_table=11 product="ribosomal protein S3" protein_id="ABV02386.1" complement(85451..86107)
 >trnL-CAA 154593..154673
 >trnM-CAU 54434..54506
 >trnA-UGC complement(145493..145530)
 >psbT codon_start=1 transl_table=11 product="photosystem II protein T" protein_id="ABV02375.1" 76738..76839
 >trnD-GUC complement(31845..31918)
 >rpoB codon_start=1 transl_table=11 product="RNA polymerase beta subunit" protein_id="ABV02340.1" complement(24302..27505)
 >rpl36 codon_start=1 transl_table=11 product="ribosomal protein L36" protein_id="ABV02382.1" complement(82076..82189)
 >atpE codon_start=1 transl_table=11 product="ATP synthase CF1 epsilon subunit" protein_id="ABV02354.1" complement(54715..55116)
 >psbN codon_start=1 transl_table=11 product="photosystem II protein N" protein_id="ABV02376.1" complement(76905..77036)
 >rps11 codon_start=1 transl_table=11 product="ribosomal protein S11" protein_id="ABV02381.1" complement(81568..81984)
 >trnP-UGG complement(68829..68902)
 >rrn4.5 complement(141477..141579)
 >trnI-CAU 161868..161941
 >rps18 codon_start=1 transl_table=11 product="ribosomal protein S18" protein_id="ABV02370.1" 70429..70776
 >ndhC codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit 3" protein_id="ABV02353.1" complement(52302..52664)
 >psbL exception="RNA editing" codon_start=1 transl_table=11 product="photosystem II protein L" protein_id="ABV02363.1" complement(66376..66492)
 >trnE-UUC complement(32164..32236)
 >rpl33 codon_start=1 transl_table=11 product="ribosomal protein L33" protein_id="ABV02369.1" 70038..70238
 >petL codon_start=1 transl_table=11 product="cytochrome b6/f complex subunit VI" protein_id="ABV02366.1" 68021..68116
 >rpl23 codon_start=1 transl_table=11 product="ribosomal protein L23" protein_id="ABV02390.1" complement(87796..88074)
 >rps19 codon_start=1 transl_table=11 product="ribosomal protein S19" protein_id="ABV02388.1" complement(86637..86918)
 >rpl14 codon_start=1 transl_table=11 product="ribosomal protein L14" protein_id="ABV02384.1" complement(83357..83725)
 >psbJ codon_start=1 transl_table=11 product="photosystem II protein J" protein_id="ABV02362.1" complement(66119..66241)
 >rpl22 codon_start=1 transl_table=11 product="ribosomal protein L22" protein_id="ABV02387.1" complement(86092..86571)
 >trnW-CCA complement(68586..68659)
 >psbH codon_start=1 transl_table=11 product="photosystem II phosphoprotein" protein_id="ABV02377.1" 77153..77374
 >trnY-GUA complement(32025..32108)
 >ndhJ codon_start=1 transl_table=11 product="NADH-plastoquinone oxidoreductase subunit J" protein_id="ABV02351.1" complement(50950..51447)
 >psbD codon_start=1 transl_table=11 product="photosystem II protein D2" protein_id="ABV02343.1" 34378..35439
 >trnI-GAU complement(146559..146595)
 >trnR-UCU 10436..10507
 >psbZ codon_start=1 transl_table=11 product="photosystem II protein Z" protein_id="ABV02345.1" 37497..37685
 >trnH-GUG complement(62..136)
 >rps14 codon_start=1 transl_table=11 product="ribosomal protein S14" protein_id="ABV02346.1" complement(38517..38819)
 >trnN-GUU 140170..140241
 >trnV-GAC complement(148605..148676)
 >rps15 codon_start=1 transl_table=11 product="ribosomal protein S15" protein_id="ABV02396.1" codon_start=1 transl_table=11 product="ribosomal protein S15" protein_id="ABV02408.1" complement(13295