OPR3 (AT2G06050): partial tree
File name: OPR3.phyl.svg
132 aa residues 311 OTU included.
Partial tree including: **Ppa_AT2G06050818641419350_1**
Assembly Job Id: xWLe6l and KNLB4U(selectNaIign)
Tree job id: x7LqDu
BP values out of 100
Analyzed by morinaga@nibb.ac.jp
Date: Mon Jun 12 16:44:36 JST 2006

Ppa_AT2G06050818641419350_1
Ppa_AT2G06050_10_1
Ppa_AT2G06050_2_1
Ppa_AT2G06050_13_1
Ppa_AT2G06050_6_1
Smo_ATG06050_2_1
Smo_ATG06050_4_1
Smo_ATG06050_5_1
Smo_ATG06050_11_1
AAY26526 Zea mays 12-oxo-phytodienoic acid reductase
AAY26524 Zea mays 12-oxo-phytodienoic acid reductase
XP_506828 Oryza sativa (japonica cultivar-group) XP_466236 BAD16527 PREDICTED P0435E12.12 gene product;putative 12-oxophytodienoic acid reductase /putative 12-oxophytodienoic acid reductase
BAD35323 Oryza sativa (japonica cultivar-group) BAD35831 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
AAY26523 Zea mays 12-oxo-phytodienoic acid reductase
AAY26522 Zea mays 12-oxo-phytodienoic acid reductase
AAY26521 Zea mays 12-oxo-phytodienoic acid reductase
BAD35319 Oryza sativa (japonica cultivar-group) BAD35827 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
BAD35321 Oryza sativa (japonica cultivar-group) BAD35829 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
BAD35317 Oryza sativa (japonica cultivar-group) BAD35825 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
BAD35325 Oryza sativa (japonica cultivar-group) BAD35833 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
CAD9308 Oryza sativa BAC01139 CAD69604 Oryza sativa (japonica cultivar-group) CAD69605 BAD26703 BAD35326 BAD35327 BAD35834 BAD35835 JC8028 cis-12-oxo-phytodienoic acid-reductase 1 - rice/12-oxophytodienoic acid reductase /oxo-phytodienoic acid reduct
AAY26525 Zea mays 12-oxo-phytodienoic acid reductase
BAA12160 Vigna unguiculata CPRD8 protein
1ICS Lycopersicon esculentum 1ICS 1ICQ 1ICQ OXO54 1ICP 1ICP CAB43606 B Chain B, Crystal Structure Of 12-Oxophytodienoate Reductase 1 From Tomato/A Chain A, Crystal Structure Of 12-Oxophytodienoate Reductase 1 From Tomato /B Chain B, Crystal Structure
AT1G76690 = NP_974157 NP_177795 1VJI Q8LA37 CAA71627 AAC78440 AAF04448 AAL75894 AAM65337 AAY85720 OPR1; 12-oxophytodienoate reductase/OPR1; 12-oxophytodienoate reductase /A Chain A, Gene Product Of At1g76690 From Arabidopsis Thaliana/OPR1_ARATH 12-o
AT1G76690 = NP_177795 Q8GYB8 AAC78441 AAF04449 BAC42387 OPR2; 12-oxophytodienoate reductase/OPR2_ARATH 12-oxophytodienoate reductase 2 (12-oxophytodienoate-10,11-reductase 2) (OPDA-reductase 2) (AtOPR2)/12-oxophytodienoate reductase OPR2 /12-oxophyt
BAD06520 Ptaum stafvum BAD12168 hypothetical protein/12-oxophytodienoic acid 10, 11-reductase
BAD06522 Ptaum stafvum hypothetical protein
BAD06521 Ptaum stafvum hypothetical protein
BAD05618 Ptaum stafvum BAD12184 AAX54668 hypothetical protein/12-oxophytodienoic acid 10, 11-reductase /12-oxophytodienoic acid 10,10-reductase
BAB40340 Ptaum stafvum BAD12185 12-oxophytodienoic acid 10, 11-reductase/12-oxophytodienoic acid 10,11-reductase
BAD06519 Ptaum stafvum BAD12186 hypothetical protein/12-oxophytodienoic acid 10,11-reductase
AAB62248 Catharanthus roseus old-yellow-enzyme homolog
BAD06575 Lithospermum erythrorhizon LEDI-5c protein
BAA83084 Lithospermum erythrorhizon LEDI-5a protein
BAA83083 Lithospermum erythrorhizon LEDI-5a protein
Smo_ATG06050_7_1
Ppa_ATG06050_18_1
AAY26527 Zea mays 12-oxo-phytodienoic acid reductase
AAY26528 Zea mays 12-oxo-phytodienoic acid reductase
XP_482184 Oryza sativa (japonica cultivar-group) XP_507257 BAD09599 BAD09954 putative 12-oxophytodienoate reductase/PREDICTED P0493A04.35 gene product /putative 12-oxophytodienoate reductase /putative 12-oxophytodienoate reductase
AAY27752 Hevea brasiliensis 12-oxophytodienoate reductase
Q9FEW9 Lycopersicon esculentum CAC21424 OPR3_LYCES 12-oxophytodienoate reductase 3 (12-oxophytodienoate-10,11-reductase 3) (OPDA-reductase 3) (LeOPR3)/12-oxophytodienoate reductase 3
AAF74635 Arabidopsis thaliana AAG13279 12-oxo-phytodienoate reductase/12-oxo-phytodienoate reductase
CAD38925 Arabidopsis thaliana OPDA-reductase homolog
Q9ASB6143 Arabidopsis thaliana 12-oxo-phytodienoate reductase
AT2G06050 = NP_973431 NP_178662 1QAS Q9FUP0 1QAS AAD19764 AAK43901 AAK93308 AAM91883 OPR3; 12-oxophytodienoate reductase/OPR3; 12-oxophytodienoate reductase /B Chain B, 12-oxo-Phytodienoate Reductase Isoform 3 /OPR3_ARATH 12-oxophytodienoate reductа
3003_Cre
3922_Cre
Ppa_ATG06050_9_1
ZP_00671251 Trichodesmium erythraeum IMS101 EAQ29413 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
XP_660286 Aspergillus nidulans FGSC A4 EAA63084 hypothetical protein AN2682.2/hypothetical protein AN2682.2
XP_388018 Gibberella zeae PH-1 EAA78036 hypothetical protein FG07842.1/hypothetical protein FG07842.1
XP_366365 Magnaporthe grisea 70-15 EAQ70725 hypothetical protein MG10583.4/hypothetical protein MGG_ch7g132
BAE57455 Aspergillus oryzae unnamed protein product
EAL19124 Cryptococcus neoformans var. neoformans B-3501A hypothetical protein CNBH2340
XP_572706 Cryptococcus neoformans var. neoformans JEC21 AAW43399 NADH dehydrogenase 2/NADPH dehydrogenase 2, putative
XP_716749 Candida albicans SC5314 XP_719560 EAK97686 EAK97761 putative NADH-dependent flavin oxidoreductase/putative NADH-dependent flavin oxidoreductase /potential NADH-dependent flavin oxidoreductase /potential NADH-dependent flavin oxidoreductase
NP_989995 Eremothecium gossypii AAS54819 Ashbya gossypii ATCC 10895 AGR329Cp/AGR329Cp
XP_456331 Debaryomyces hansenii CBZ167 CAG84079 hypothetical protein DEHA2A00132g/unnamed protein product
XP_502992 Yarrowia lipolytica CLIB122 CAG81083 hypothetical protein/unnamed protein product
XP_505797 Yarrowia lipolytica CLIB122 CAG78808 hypothetical protein/unnamed protein product
XP_500567 Yarrowia lipolytica CLIB122 CAG82798 hypothetical protein/unnamed protein product
XP_502277 Yarrowia lipolytica CLIB122 CAG80443 hypothetical protein/unnamed protein product
XP_504471 Yarrowia lipolytica CLIB122 CAG80072 hypothetical protein/unnamed protein product
YP_372000 Burkholderia sp. 383 ABB11356 NADH-flavin oxidoreductase/NADH oxidase /NADH-flavin oxidoreductase/NADH oxidase
NP_774246 Bradyrhizobium japonicum USDA 110 BAC52871 oxidoreductase/oxidoreductase
ZP_00857707 Bradyrhizobium sp. BTAi1 EAP32045 similar to NADH:flavin oxidoreductases Old Yellow Enzyme family/similar to NADH:flavin oxidoreductases Old Yellow Enzyme family
ZP_00282084 Burkholderia xenovorans LB400 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_171755 Synechococcus elongatus PCC 6301 BAD79235 similar to xenobiotic reductase/similar to xenobiotic reductase
ZP_00842122 Nodularia spumigena CCY9414 EAW31305 NADH:flavin oxidoreductase Old Yellow Enzyme family-like/NADH:flavin oxidoreductases Old Yellow Enzyme family-like
YP_113154 Methylococcus capsulatus str. Bath AAU93057 NADH-dependent flavin oxidoreductase, Oye family/NADH-dependent flavin oxidoreductase, Oye family
YP_335252 Nitrosomonas eutropha C91 CAJ72481 NP_485905 Nostoc sp. PCC 7120 BAB73564 ABA23837 Anabaena variabilis ATCC 29413 flavin oxidoreductase/NADH oxidase /hypothetical protein all1865 /all1865 /flavin oxidoreductase/NADH oxidase
ZP_00108564 Nostoc punctiforme PCC 73102 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
NP_615954 Methanosarcina acetivorans C2A AAM04434 Fmn oxidoreductase protein/Fmn oxidoreductase protein
YP_303986 Methanosarcina barkeri str. fusaro AAZ28405 Fmn oxidoreductase protein/Fmn oxidoreductase protein
YP_348176 Pseudoalteromonas PfO-1 ABA74186 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_445806 Salinibacter ruber DSM 13855 ABC44793 oxidoreductase, FMN-binding/oxidoreductase, FMN-binding
YP_159037 Azoarcus sp. EbN1 CAI08136 flavoprotein NADH-dependent oxidoreductase/Flavoprotein NADH-dependent oxidoreductase
ZP_00419835 Azotobacter vinelandii AvOP ABX00364 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_456974 Erythrobacter litoralis HTCC2594 ABC62177 Putative oxidoreductase/Putative oxidoreductase
YP_495374 Novosphingobium aromaticivorans DSM 12444 ABD25440 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00579129 Sphingopyxis alaskensis RB2256 EAN64331 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
AAD16109 Chromobacterium violaceum synthase p.c. quinone NAD(P)H-dependent 2-cyclohexen-1-one reductase Nc
YP_190404 Gluconobacter oxydans 621H AAW59748 NAD(P)H-dependent 2-cyclohexen-1-one reductase/NAD(P)H-dependent 2-cyclohexen-1-one reductase
YP_163620 Zymomonas mobilis subsp. mobilis ZM4 AAV90509 NADH:flavin oxidoreductase/NADH:flavin oxidoreductase
YP_190936 Gluconobacter oxydans 621H AAW60280 Putative oxidoreductase/Putative oxidoreductase
YP_054304 Paramecium tetraurelia CAH03573 Oxidoreductase, putative/Oxidoreductase, putative
EAS07039 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89966 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAS03367 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR87547 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR88267 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR91246 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89566 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89567 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89565 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
YP_047964 Acinetobacter sp. ADP1 CAQ70142 xenobiotic reductase/xenobiotic reductase
ZP_01145823 Acidiphilium cryptum JF-5 EAR39941 xenobiotic reductase/xenobiotic reductase
ZP_00676663 Pelobacter propionicus DSM 2379 EAO37713 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_434696 Hahella chejuensis KCTC 2396 ABC30271 NADH:flavin oxidoreductase, Old Yellow Enzyme family/NADH:flavin oxidoreductase, Old Yellow Enzyme family
YP_929241 Photorhabdus luminescens subsp. laumondii TTO1 CAE14268 hypothetical protein plu1975/unnamed protein product
YP_296054 Ralstonia eutropha JMP134 AAZ63420 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00283005 Burkholderia xenovorans LB400 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00669473 Burkholderia ambifaria AMMD EAD44206 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00462647 Burkholderia vietnamiensis G4 EAM27158 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00420713 Burkholderia dolosa AUO158 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00464243 Burkholderia cenocepacia HI2424 ZP_00457450 Burkholderia cenocepacia AU 1054 ZP_00977404 Burkholderia cenocepacia PC184 EAM09869 Burkholderia cenocepacia AU 1054 EAM16627 Burkholderia cenocepacia HI2424 NADH:flavin oxidoreductase/
YP_371709 Burkholderia sp. 383 ABB11065 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_439719 Burkholderia thailandensis E264 ABC35583 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00469349 root ZP_00935538 Burkholderia mallei JHU YP_110886 Burkholderia pseudomallei K96243 ZP_00490423 Burkholderia pseudomallei 668 ZP_00941291 Burkholderia pseudomallei 406e ZP_00499972 root ZP_00442040 Burkholderia mallei GB8 horse
ZP_00896288 root ZP_00991396 Burkholderia pseudomallei 1710b CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family/CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
NP_253046 Pseudomonas aeruginosa PAO1 ZP_00137841 Pseudomonas aeruginosa UCBPP-PA14 ZP_00971191 Pseudomonas aeruginosa 2192 AAG07744 Pseudomonas aeruginosa PAO1 xenobiotic reductase/CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00965324 Pseudomonas aeruginosa C3719 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00417888 Azotobacter vinelandii AvOP BAA88211 Azotobacter vinelandii EAM05524 Azotobacter vinelandii AvOP NADH:flavin oxidoreductase/NADH oxidase /NAD(P)H-dependent 2-cyclohexen-1-one reductase homolog /NADH:flavin oxidoreductase/NADH oxidase
YP_276184 Pseudomonas syringae pv. phaseolicola 1448A AAZ35285 xenobiotic reductase B/xenobiotic reductase B
NP_794113 Pseudomonas syringae pv. tomato str. DC3000 AAO57808 oxidoreductases, FAD/FMN-binding /oxidoreductase, FAD/FMN-binding
ZP_00237121 Pseudomonas syringae pv. syringae B728a AAY39083 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_743081 Pseudomonas putida KT2440 AAN66545 xenobiotic reductase B/xenobiotic reductase B
ZP_00898867 Pseudomonas putida F1 EAP52046 xenobiotic reductase B/xenobiotic reductase B
YP_347014 Pseudomonas fluorescens PfO-1 ABA73025 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
AAF02539 Pseudomonas fluorescens xenobiotic reductase B
YP_258464 Pseudomonas fluorescens PfO-5 ABY90920 xenobiotic reductase B/xenobiotic reductase B
ZP_01017284 Parvularcula bermudensis HTCC2503 EAQ17795 GTN reductase/GTN reductase
EAE43873 Stylophora lorrentzeki 41 kDa flavoprotein
ZP_00775046 Pseudoalteromonas atlantica T6c EAO68315 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
CAJ02993 Leishmania major NADH:flavin oxidoreductase/NADH oxidase, putative
CAJ_801603 Trypanosoma cruzi strain CL Brener AAA74448 Trypanosoma cruzi AAX54857 AAX54858 AAX55669 EAN69752 prostaglandin F2alpha synthase/dehydrogenase /dehydrogenase /dehydrogenase /prostaglandin F2alpha synthase
BAC24024 Trypanosoma cruzi AAX54859 AAX54860 prostaglandin F2a synthase/dehydrogenase /dehydrogenase
AAX54854 Trypanosoma cruzi AAX54855 AAX54856 dehydrogenase/dehydrogenase /dehydrogenase
AAX54861 Trypanosoma cruzi dehydrogenase
ZP_01164793 Oceanospirillum sp. MED92 EAR62790 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00762263 Vibrio sp. Ex25 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_01084887 Synechococcus sp. WH 5701 EAQ75576 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00690105 Halorhodospira sp. MC-1 EAN29489 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_842499 Nitrosomonas europaea ATCC 19718 CAD86422 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00686493 Burkholderia sp. BTAi1 EAP25940 similar to xenobiotic reductase/similar to xenobiotic reductase
ZP_00916065 Rhodobacter sphaeroides ATCC 17025 EAP62659 NADH:flavin oxidoreductase, Oye family/NADH:flavin oxidoreductase /Putative NADH-flavin
ZP_00918958 Rhodobacter sphaeroides ATCC 17029 YP_352910 Rhodobacter sphaeroides 2.4.1 ABA79009 EAP67781 Rhodobacter sphaeroides ATCC 17029 NADH-dependent flavin oxidoreductase, Oye family/Putative NADH-flavin oxidoreductase /Putative NADH-flavin
ZP_00682825 Silicibacter sp. TM1040 EAN65310 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_01034013 Roseovarius sp. 217 EAQ26694 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00957214 Sulfitobacter sp. EE-36 EAP64139 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00963109 Sulfitobacter sp. NAS-14.1 EAP80656 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
YP_371291 Burkholderia sp. 383 ABB10617 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_425567 Rhodopseudomonas rubrum ATCC 11170 ABC21280 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00564853 Methylobacillus flagellatus KT EAN33387 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00282074 Burkholderia xenovorans LB400 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_347975 Pseudomonas fluorescens PfO-1 ABA73986 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_790871 Pseudomonas syringae pv. tomato str. DC3000 AAO56566 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
YP_236006 Pseudomonas syringae pv. syringae B728a AAY37968 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00582554 Shewanella baltica OS155 EAU13419 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00593734 Ralstonia metallidurans CH34 EAN54024 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00243270 Ruthenia galelinosus PM1 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_284325 Dechloromonas aromatica RCB AAZ45855 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_200539 Xanthomonas oryzae pv. oryzae KACC10331 YP_450824 Xanthomonas oryzae pv. oryzae MAFF 311018 AAW51514 Xanthomonas oryzae pv. oryzae KACC10331 BAE68550 Xanthomonas oryzae pv. oryzae MAFF 311018 GTN reductase/GTN reductase /GTN reductase /GTN reductase
YP_541992 Xanthomonas campestris pv. campestris str. 8004 NP_636689 Xanthomonas campestris pv. campestris str. ATCC 33913 AAM40613 AAY49972 Xanthomonas campestris pv. campestris str. 8004 GTN reductase/GTN reductase /GTN reductase /GTN reductase
YP_363148 Xanthomonas campestris pv. vesicatoria str. 85-10 CAJ23048 putative oxidoreductase/putative oxidoreductase
CAA74280 Agrobacterium tumefaciens GTN Reductase
AAO52861 Agrobacterium tumefaciens str. C58 NP_355149 AAK87934 AAL43177 oxidoreductase/hypothetical protein AGR_C_3979 /AGR_C_3979p /oxidoreductase
YP_470473 Rhizobium etli CFN 42 ABC91746 glycerol trinitrate reductase protein/glycerol trinitrate reductase protein
ZP_00669775 Nitrosomonas eutropha C71 EAO17738 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_700069 Brucella suis 1330 YP_416542 Brucella melitensis biovar Abortus 2308 YP_222651 Brucella melitensis biovar Abortus 2308 str. 9-941 NP_541372 Brucella melitensis 16M AAL53636 AAN34074 Brucella suis 1330 AAX75762 Brucella abortus biovar 1 str. 9-941
NP_385670 Sinorhizobium meliloti 1021 CAC46143 Sinorhizobium meliloti PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN/PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN
ZP_00825 Silicibacter pomeroyi DSS-3 EAP65860 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_700069 Brucella suis 1330 YP_416542 Brucella melitensis biovar Abortus 2308 YP_222651 Brucella melitensis biovar Abortus 2308 str. 9-941 NP_541372 Brucella melitensis 16M AAL53636 AAN34074 Brucella suis 1330 AAX75762 Brucella abortus biovar 1 str. 9-941
NP_385670 Sinorhizobium meliloti 1021 CAC46143 Sinorhizobium meliloti PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN/PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN
ZP_00825 Silicibacter pomeroyi DSS-3 EAP65860 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00505230 Psiloramonas sp. JS666 EAM41155 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_480940 Polaromonas naphthalenivorans CJ2 EAQ29816 morphinone reductase/morphinone reductase
ZP_880624 Bordetella pertussis Tohama I CAE42222 N-ethylmaleimide reductase/N-ethylmaleimide reductase
NP_884556 Bordetella parapertussis 12822 NP_888310 Bordetella bronchiseptica RB50 CAE37611 Bordetella parapertussis CAE32262 Bordetella bronchiseptica RB50 N-ethylmaleimide reductase /N-ethylmaleimide reductase /N-eth
NP_10610 Mesorhizobium loti MAFF303099 BAB49396 morphinone reductase/morphinone reductase
NP_535816 Agrobacterium tumefaciens str. C58 NP_356379 AAK90820 AAL46132 oxidoreductase/hypothetical protein AGR_pAT_653 /AGR_pAT_653p /oxidoreductase
ZP_00852165 Yersinia intermedia ATCC 29909 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00689229 Burkholderia ambifaria AMMD EAD44494 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_791689 Pseudomonas syringae pv. tomato str. DC3000 AAO55384 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
ZP_259912 Pseudomonas fluorescens Pf-5 AAY30078 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
EAD84976 uncultured bacterium xenobiotic reductase B
YP_348210 Pseudomonas fluorescens PfO-1 ABA74220 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_769085 Bradyrhizobium japonicum USDA 110 BAC47710 oxidoreductase/oxidoreductase
YP_487812 Rhodopseudomonas palustris HaA2 ABD08901 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00686493 Burkholderia sp. BTAi1 EAP25940 similar to xenobiotic reductase/similar to xenobiotic reductase
YP_949739 Rhodopseudomonas palustris CGA009 CAE29844 morphinone reductase/morphinone reductase
ZP_00957214 Sulfitobacter sp. EE-36 EAP64139 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00847608 Rhodopseudomonas palustris BisB18 ABD86930 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00850742 Rhodopseudomonas palustris BisB5 EAD84840 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00858237 Bradyrhizobium sp. BTAi1 EAP32575 morphinone reductase/morphinone reductase
ZP_01196456 Xanthobacter autotrophicus Py2 EAS18090 morphinone reductase/morphinone reductase
XP_717099 Candida albicans SC5314 XP_719560 Cryptococcus neoformans var. neoformans JEC21 EAL21022 Cryptococcus neoformans var. neoformans JEC21 hypothetical protein/hypothetical protein CNBD3980 /conserved hypothetical pro
YP_339404 Pseudaeromonas halophilanita TAC125 CAB59961 NADPH dehydrogenase/putative NADPH dehydrogenase
YP_422536 Magnetospirillum magneticum AMB-1 BAE51977 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_422668 Magnetospirillum magneticum AMB-1 BAE52109 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00107601 Nostoc punctiforme PCC 73102 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_01109200 Alteromonas macleodii 'Deep ecotype' EAR06594 xenobiotic reductase B/xenobiotic reductase B
ZP_01093518 Blastopirellula marina DSM 3645 EAQ77724 xenobiotic reductase B/xenobiotic reductase B
NP_869810 Rhodopirellula baltica SH 1 CAD77198 xenobiotic reductase B/xenobiotic reductase B
ZP_01048959 Cellulophaga sp. MED134 EAQ40193 morphinone reductase/morphinone reductase
YP_529373 Rhodoferax ferrireducens DSM 15236 ABD68642 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00308180 Cytophaga hutchinsonii CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00504147 Psiloramonas sp. JS666 EAM39277 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_521592 Rhodoferax ferrireducens DSM 15236 ABD68061 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_863084 Pseudomonas putida NP_943098 Pseudomonas sp. ND6 AAO64286 Pseudomonas putida AAP44196 Pseudomonas sp. ND6 putative oxidoreductase/morphinone reductase /putative oxidoreductase /morphinone reductase
ZP_00505950 Psychrobacter arcticus 273-4 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00503149 Chloroflexus chlorochromatii CP099 EAM33583 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00530670 Chloroflexus phaeobacteroides BS1 EAM64772 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00507005 Polaromonas sp. JS666 EAM38957 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00511463 Chloroflexus chlorochromatii CP099 EAM34997 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NP_885086 Bordetella bronchiseptica RB50 CAE33242 putative NADH oxidase/putative NADH oxidase
ZP_00474394 Chromohalobacter salexigens DSM 3043 EAM22268 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_234643 Pseudomonas syringae pv. syringae B728a AAY36000 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00685221 Burkholderia ambifaria AMMD EAD43137 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00794750 Yersinia pseudotuberculosis IP 31758 YP_069741 Yersinia pseudotuberculosis IP 32953 NP_992357 Yersinia pestis biovar Medievalis str. 91001 AAL27376 Yersinia pestis biovar Medievalis str. 91001 CAH20446 Yer
NP_794015 Pseudomonas syringae pv. tomato str. DC3000 AAO57710 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
ZP_00465488 Burkholderia cenocepacia HI2424 EAM18421 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00133672 Pseudomonas aeruginosa UCBPP-PA14 ZP_00968693 Pseudomonas aeruginosa C3719 NP_251622 Pseudomonas aeruginosa PAO1 AAO06320 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family/CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00974447 Psychromonas ingrahamii 37 EAQ42195 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_390797 Thiomicrospira crunogena XCL-2 ABB41123 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00944965 Ralstonia solanacearum UW551 EAP72449 morphinone reductase/morphinone reductase
ZP_519323 Ralstonia solanacearum GMI1000 CAD14904 Ralstonia solanacearum PROBABLE FLAVOPROTEIN NADH-DEPENDENT OXIDOREDUCTASE/PROBABLE FLAVOPROTEIN NADH-DEPENDENT OXIDOREDUCTASE
ZP_01019427 Polaromonas naphthalenivorans CJ2 EAQ22136 probable flavoprotein NADH-dependent oxidoreductase/probable flavoprotein NADH-dependent oxidoreductase
ZP_00744488 Chromohalobacter salexigens DSM 3043 EAM29195 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
1GWJ Pseudomonas putida AAC45569 A Chain A, Morphinone Reductase/morphinone reductase
ZP_01204081 Mycobacterium vanbaalenii PYR-1 EAS29373 NADH-flavin oxidoreductase/NADH oxidase
YP_263489 Psychrobacter arcticus 273-4 AAZ18055 putative N-ethylmaleimide reductase/putative N-ethylmaleimide reductase
ZP_00654720 Psychrobacter cryohalolentis K5 EAO10486 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
AAR02328 Enterobacter cloacae pentaerythritol tetranitrate reductase
2ABA Enterobacter cloacae 1VYR 1H51 1GVS 1GVR 1GVQ 1GVO 1H63 1VYS 1H61 1H60 1H50 1VYP 2ABB 1H62 AAB36863 A Chain A, Structure Of Reduced Petn Reductase In Complex With Progesterone/A Chain A, Stucture Of Pentaerythritol Tetranitrate Reductase Complexed
ZP_00717351 Escherichia coli B7A ZP_00719035 Escherichia coli E110019 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00698509 Shigella boydii BS512 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_310441 Shigella sonnei Ss046 AAZ89206 N-ethylmaleimide reductase/N-ethylmaleimide reductase
YP_837337 Shigella flexneri 2a str. 2457T NP_707551 Shigella flexneri 2a str. 301 AAN43258 AAP17144 Shigella flexneri 2a str. 2457T N-ethylmaleimide reductase/N-ethylmaleimide reductase /N-ethylmaleimide reductase /N-ethylmaleimide reductase
ZP_00722774 Escherichia coli F11 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00902613 Escherichia coli 101-1 CQG11902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_403476 Shigella dysenteriae Sd197 ABB61985 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00712964 Escherichia coli B171 NP_310386 Escherichia coli O157:H7 EDL933 CAR08428 Escherichia coli EDL933 ECA2_0227 ECA2_0227 Escherichia coli O157:H7 EDL933 ZP_00705799 Escherichia coli HS NP_416167 Escherichia coli K12
YP_150670 Salmonella enterica subsp. enterica serovar Paratyphi A str. ATCC 9150 AAV77358 N-ethylmaleimide reductase/N-ethylmaleimide reductase
YP_216442 Salmonella enterica subsp. enterica serovar Choleraesuis str. SC-B67 AAX65363 N-ethylmaleimide reductase/N-ethylmaleimide reductase
NP_460399 Salmonella typhimurium LT2 AAL20358 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00745694 Salm