OPRD (ATZG00650): partial tree
File name: OPRD.pzf; svg
93 aa residues 346 OTU included
Partial tree including: Ppa_ATZG00650_12_1
Assemble Job lc WtL6ll and KNL84U(selectNalign)
Tree job id: DsYwNV
BP values out of 100
Analyzed by msmaga@nibb.ac.jp
Date: Mon Jun 05 19:31:33 JST 2006
ATZG06050 = NP_973431 NP_176662 1QA5 1QA6 Q9FUP0 AAD18764 CAB66143 AAK43901 AAK95306 AAM19883 OPR3; 12-oxophytodienoate reductase/OPR3; 12-oxophytodienoate reductase /A Chain A, 12-Oxo-Phytodienoate Reductase Isoform 3/B Chain B, 12-Oxo-Phytodienoat
AAD08935 Arabidopsis thaliana AAF87635 AAG15379 OPDA-reductase homolog/12-oxo-phytodienoate reductase /12-oxo-phytodienoate 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
AAY26527 Zea mays 12-oxo-phytodienoic acid reductase
AAY26528 Zea mays 12-oxo-phytodienoic acid reductase
XP_482784 Oryza sativa (japonica cultivar-group) XP_507257 BAD05599 BAD09954 putative 12-oxophytodienoate reductase/PREDICTED P0493A04 35 gene product (putative 12-oxophytodienoate reductase
Ppa_ATZG06050_12_1
Ppa_ATZG06050_13_1
Smo_ATZG06050_7_1
Ppa_ATZG06050_9_1
Ppa_ATZG06050_19_1
AAY26524 Zea mays 12-oxo-phytodienoic acid reductase
AAY26526 Zea mays 12-oxo-phytodienoic acid reductase
Ppa_ATZG06050_11_1
Smo_ATZG06050_4_1
Smo_ATZG06050_5_1
Smo_ATZG06050_11_1
BAD35323 Oryza sativa (japonica cultivar-group) BAD35831 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
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
AAY26523 Zea mays 12-oxo-phytodienoic acid reductase
AAY26522 Zea mays 12-oxo-phytodienoic acid reductase
AAY26521 Zea mays 12-oxo-phytodienoic acid reductase
BAD35325 Oryza sativa (japonica cultivar-group) BAD35833 putative 12-oxophytodienoic acid reductase/putative 12-oxophytodienoic acid reductase
XP_463828 Oryza sativa (japonica cultivar-group) BAD07603 BAD35326 BAD35834 JC0828 cis-12-oxo-phytodienoic acid reductase/putative 12-oxophytodienoic acid reductase 1 - rice/12-oxophytodienoic acid reductase /oxo-phytodienoic acid reductase /12-oxo-phytodienoic ac
Ppa_ATZG06050_10_1
Smo_ATZG06050_8_1
Smo_ATZG06050_9_1
Smo_ATZG06050_13_1
Ppa_ATZG06050_6_1
Ppa_ATZG06050_2_1
AAA93064 Lithospermum erythrorhizon LEI5-5b protein
BAA83093 Lithospermum erythrorhizon LEI5-5a protein
ATTG10900 = NP_172411 Q6QY93 AAC33200 12-oxophytodienoate reductase/OPR1/_ARATH Putative 12-oxophytodienoate reductase-like protein 1/Similar to 12-oxophytodienoate reductase, gi|2765083 and old-yellow-enzyme homolog, gi|2232254
1QFM Chain A Pentaerythritol Tetranitrate Reductase, Ogg1 Complex With 1,3-Propanediol And Fmn 1QFM Chain B Crystal Structure Of 12-Oxophytodienoate Reductase 1 From Tomato 1QFM Chain C Crystal Structure Of 12-Oxophytodienoate Reductase 1 From Tomato 1QFM Chain D Crystal Structure
ATTG17990 = NP_001031062 NP_172411 NP_849683 Q9C5W1 AAF97278 AAF97820 AAK60865 BAC42784 12-oxophytodienoate reductase/12-oxophytodienoate reductase /12-oxophytodienoate reductase /OPR1/2_ARATH Putative 12-oxophytodienoate reductase-like protein 2/Sir
AAY26525 Zea mays 12-oxo-phytodienoic acid reductase
ATTG10940 = NP_974157 NP_177794 1VJ4 Q8L4H7 CAA71627 AAC78424 AAF04408 AAL75894 AAV85720 OPR1; 12-oxophytodienoate reductase/OPR1; 12-oxophytodienoate reductase /A Chain A, Gene Product Of At1g76680 From Arabidopsis Thaliana/OPR1_ARATH 12-oxophytodi
BAC42387 Arabidopsis thaliana 12-oxophytodienoate reductase OPR2
ATTG76990 = NP_177795 Q8GYB8 AAC78441 AAF04409 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-oxophytodienoate
XP_566828 Oryza sativa (japonica cultivar-group) XP_466336 BAD16527 PREDICTED P0435E12.12 gene product/putative 12-oxophytodienoic acid reductase /putative 12-oxophytodienoic acid reductase
BAD06529 Pisum sativum BAD12188 hypothetical protein/12-oxophytodienoic acid 10, 11-reductase
BAD06518 Pisum sativum BAD06521 BAD12184 AAX54688 hypothetical protein/hypothetical protein /12-oxophytodienoic acid 10, 11-reductase /12-oxophytodienoic acid 10,10-reductase
BAD06522 Pisum sativum hypothetical protein
BAD06483 Pisum sativum BAD12185 12-oxophytodienoic acid 10, 11-reductase/12-oxophytodienoic acid 10,11-reductase
BAD06519 Pisum sativum BAD12186 hypothetical protein/12-oxophytodienoic acid 10,11-reductase
BAA12160 Vigna unguiculata CPRD8 protein
AAB62248 Catharanthus roseus old-yellow-enzyme homolog
BAD06575 Lithospermum erythrorhizon LEI5-5c protein
EJL19124 Cryptococcus neoformans var. neoformans B-3501A hypothetical protein CNBH0240
XP_572706 Cryptococcus neoformans var. neoformans JEC21 AAW45399 NADPH dehydrogenase 2/NADPH dehydrogenase 2, putative
CAE57455 Aspergillus oryzae unnamed protein product
3203_Cre
3202_Cre
XP_382041 Gibberella zeae PH-1 EAA68117 hypothetical protein FG00065.1/hypothetical protein FG00065.1
XP_658014 Aspergillus nidulans FGSC A4 EAA59412 hypothetical protein AN0345.2/hypothetical protein AN0345.2
XP_383438 Gibberella zeae PH-1 EAA72709 hypothetical protein FG03262.1/hypothetical protein FG03262.1
XP_323805 Neurospora crassa XP_955910 Neurospora crassa HS1G EAA29674 Neurospora crassa hypothetical protein/hypothetical protein /probable NADPH2 dehydrogenase chain OYE2
XP_661749 Aspergillus nidulans FGSC A4 EAA59406 hypothetical protein AN4145.2/hypothetical protein AN4145.2
XP_745706 Aspergillus fumigatus AfIS149 conserved hypothetical protein
XP_662832 Aspergillus nidulans FGSC A4 EAA62409 hypothetical protein AN5228.2/hypothetical protein AN5228.2
XP_750133 Aspergillus fumigatus AfIS149 EAL34050 NADPH/dehydrogenase 3/NADPH dehydrogenase 3
XP_749538 Aspergillus fumigatus AfIS3 EAL67500 hypothetical protein AfuQqA04060/NADH:flavin oxidoreductase/NADH oxidase family protein
AAS64474 Aspergillus oryzae n-hexanal protein product
AAS56612 Saccharomyces cerevisiae YHR179W
XP_012040 Saccharomyces cerevisiae Q02558 AAA93386 AAB68024 Widely conserved NADPH oxidoreductase containing flavin mononucleotide (FMN), homologous to Oye2p with slight differences in ligand binding and catalytic properties; may be involved in stero
IBWK Saccharomyces cerevisiae A Chain A, Old Yellow Enzyme (Oye1) Mutant H181n
IBWL Saccharomyces cerevisiae A Chain A, Old Yellow Enzyme (Oye1) Double Mutant H181n/Y184h
XP_502 Saccharomyces cerevisiae Q03899 Saccharomyces paradoxus 10YC 1603 Saccharomyces cerevisiae 10YA Saccharomyces paradoxus 10YC 1603 Saccharomyces cerevisiae
XP_455631 Debaryomyces hansenii CBS767 CAG94273 hypothetical protein DEHA0A00132g/unnamed protein product
XP_459654 Yarrowia lipolytica CLIB122 CAG83574 hypothetical protein/unnamed protein product
XP_502892 Yarrowia lipolytica CLIB122 CAG81083 hypothetical protein/unnamed protein product
XP_505797 Yarrowia lipolytica CLIB122 CAG78606 hypothetical protein/unnamed protein product
XP_500527 Yarrowia lipolytica CLIB122 CAG80736 hypothetical protein/unnamed protein product
XP_502277 Yarrowia lipolytica CLIB122 CAG80463 hypothetical protein/unnamed protein product
XP_504471 Yarrowia lipolytica CLIB122 CAG80072 hypothetical protein/unnamed protein product
EAS57143 Aspergillus oryzae unnamed protein product
XP_386518 Gibberella zeae PH-1 EAA78036 hypothetical protein FG07842.1/hypothetical protein FG07842.1
XP_366369 Magnaporthe grisea 70-15 EAQ70725 hypothetical protein MG10363.4/hypothetical protein MG10363.4
XP_572301 Cryptococcus neoformans var. neoformans JEC21 EAL17842 Cryptococcus neoformans var. neoformans B-3501A AAW44994 Cryptococcus neoformans var. neoformans JEC21 NADPH dehydrogenase/hypothetical protein CNBL1040 NADPH dehydrogenase, putati
BAD52541 Aspergillus oryzae unnamed protein product
XP_660446 Aspergillus nidulans FGSC A4 EAA63468 hypothetical protein AN9177.2/hypothetical protein AN9177.2
Ppa_ATZG06050_17
Ppa_ATZG06050_8_1
Smo_ATZG06050_1
Smo_ATZG06050_2
Ppa_ATZG06050_3_1
Ppa_ATZG06050_4_1
Ppa_ATZG06050_5_1
Ppa_ATZG06050_6_1
Ppa_ATZG06050_7_1
Ppa_ATZG06050_20_1
Ppa_ATZG06050_17_2
Smo_ATZG06050898085891_1
Ppa_ATZG06050883652626_1
ZP_01186847 Bacillus weihenstephanensis KBAB4 EAR73787 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
BF_B3378 Bacillus cereus ATCC 14579 AAP10577 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00238638 Bacillus cereus G9241 EAL13753 oxidoreductase, FMN-binding/oxidoreductase, FMN-binding
ZP_03772030 Bacillus thuringiensis serovar konkukian str. 97-27 AAT03949 NADH:flavin oxidoreductase/NADH oxidase, Oye family
NP_845970 Bacillus anthracis str. Ames YP_020340 Bacillus anthracis str. 'Ames Ancestor' YP_029663 Bacillus anthracis str. Sterne AAP27456 Bacillus anthracis str. 'Ames Ancestor' AAT50744 Bacillus anthrac
YP_096726 Legionella pneumophila str. Philadelphia 1 YP_125085 Legionella pneumophila str. Paris AAU28779 Legionella pneumophila str. Philadelphia 1 CAH13932 Legionella pneumophila str. Paris NADH-dependent
YP_268140 Colwellia psychrerythraea 34H AAZ27063 oxidoreductase, FAD/FMN-binding /oxidoreductase, FAD/FMN-binding
ZP_01027458 Idiomarina sp. ABM21121 EAQ27259 putative NADH-dependent flavin oxidoreductase/NADH oxidase
ZP_00640225 Shewanella frigidimarina NCIMB 400 EAN72954 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_03076998 Vibrio cholerae M0101 NF_233080 Vibrio cholerae O1 biovar eltor str. N16961 ZP_00745719 Vibrio cholerae O1 biovar eltor str. N16961 COG1902: NADH:flavin oxidoreductases,
ZP_00853576 Shewanella sp. MR-7 ZP_00852053 Shewanella sp. ANA-3 ZP_00883135 Shewanella sp. MR-4 EAP14891 Shewanella sp. ANA-3 EAP23251 Shewanella sp. MR-7 EAP45118 Shewanella sp. MR-4 oxidoreductase, FMN-binding/oxidoreductase,
YP_718946 Shewanella oneidensis MR-1 AAN56390 oxidoreductase, FMN-binding/oxidoreductase, FMN-binding
ZP_01132095 Pseudoalteromonas tunicata D2 EAR30401 oxidoreductase, FMN-binding protein/oxidoreductase, FMN-binding protein
ZP_01077950 Marinomonas sp. MED121 EAQ63894 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
YP_447964 Acidithiobacillus ferrooxidans ATCC 23270 AAZ98352 xenobiotic reductase/xenobiotic reductase
ZP_01102010 Alteromonas macleodii 'Deep ecotype' EAR06584 xenobiotic reductase B/xenobiotic reductase B
ZP_01093518 Blastopirellula marina DSM 3645 EAQ77724 xenobiotic reductase B/xenobiotic reductase B
ZP_01108497 Rhodopirellula baltica SH 1 CAD77188 xenobiotic reductase B/xenobiotic reductase B
YP_456974 Erythrobacter litoralis HTCC2594 ABC62177 Putative oxidoreductase/Putative oxidoreductase
YP_485370 Novosphingobium aromaticivorans DSM 12444 ABD24440 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00579129 Sphingopyxis alaskensis RB2256 EAN66331 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00462538 Burkholderia cenocepacia HI2424 ZP_00452848 Burkholderia cenocepacia AU 1054 EAM15284 EAM16284 Burkholderia cenocepacia HI2424 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
NAD16106 Pseudomonas syringae pv. glycinea NADH-dependent 2-cyclohexen-1-one reductase Ncr
YP_183620 Zymomonas mobilis subsp. mobilis ZM4 AAV90509 NADH:flavin oxidoreductase/NADH oxidase
YP_190404 Gluconobacter oxydans 621H AAW93748 NAD(P)H-dependent 2-cyclohexen-1-one reductase/NAD(P)H-dependent 2-cyclohexen-1-one reductase
YP_190936 Gluconobacter oxydans 621H AAW93280 Putative oxidoreductase/Putative oxidoreductase
ZP_00864059 Bradyrhizobium sp. BTAi1 EAP25840 similar to xenobiotic reductase/similar to xenobiotic reductase
ZP_00419835 Azotobacter vinelandii AvOP EAM03834 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_554304 Paracoccus denitrificans PD1222 ABA80267 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAS03897 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR81246 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAS01496 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR92637 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR86020 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR86493 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89566 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
EAR89565 Tetrahymena thermophila SB210 oxidoreductase, FAD/FMN-binding family protein
CAJ03093 Leishmania major nicotinamide reductase-like protein
CAJ03093 Leishmania major NADH:flavin oxidoreductase/NADH oxidase, putative
ZP_01164793 Oceanospirillum sp. MED92 EAR62790 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_01084887 Synechococcus sp. WH 5701 EAQ75576 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_00606105 Magnetococcus sp. MC-1 EAN29489 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00762063 Vibrio sp. Ex25 CON1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_924499 Nitrosomonas europaea ATCC 19718 CAD86422 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_521689 Rhodoferax ferrireducens DSM 15236 ABD68158 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00502350 Polaromonas sp. JS666 EAM41153 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_01020840 Polaromonas naphthalenivorans CJ2 EAQ20816 morphinone reductase/morphinone reductase
ZP_00869775 Alcanivorax borkumensis SK2 YP_693068 Pseudomonas putida AAP44196 Pseudomonas sp. ND6 putative oxidoreductase/morphinone reductase /putative oxidoreductase /morphinone reductase
NP_880624 Bordetella pertussis Tohama I CAE42222 N-ethylmaleimide reductase/N-ethylmaleimide reductase
YP_884558 Bordetella parapertussis 12822 NP_888310 Bordetella bronchiseptica RB50 CAE57611 Bordetella parapertussis CAE32262 Bordetella bronchiseptica RB50 N-ethylmaleimide reductase /N-ethylmaleimide reductase /N-eth
CAA74280 Agrobacterium tumefaciens GTN Reductase
NP_532861 Agrobacterium tumefaciens str. C58 NP_355149 AAK87934 AAL43177 oxidoreductase/Pentaerythritol tetranitrate reductase/Pentaerythritol tetranitrate reductase AGR_C_3979 /AGR_C_3979p /oxidoreductase
YP_470473 Rhizobium etli CFN 42 ABC91746 glycerol trinitrate reductase protein/glycerol trinitrate reductase protein
ZP_01552151 Brucella melitensis 16M AAL30306 glycerol trinitrate reductase/glycerol trinitrate reductase
ZP_02313123 Brucella abortus bovar 1 str. 9-941 YP_418542 Brucella melitensis biovar Abortus 2308 NP_700908 Brucella suis 1330 AAN43074 AAX57562 Brucella abortus bovar 1 str. 9-941 CAJ12501 Brucella melitensis biovar Abortus oxidoreductase, F
ZP_00570010 Sinorhizobium meliloti 1021 CAC46143 Sinorhizobium meliloti PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN/PUTATIVE GLYCEROL TRINITRATE (GTN) REDUCTASE PROTEIN
NP_103610 Mesorhizobium loti MAFF303099 BAB43496 morphinone reductase/morphinone reductase
SAE43873 Scytalidium lignicolum 4-1 40a flavoprotein
ZP_00593734 Ralstonia metallidurans CH34 EAN54024 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00859229 Burkholderia ambifaria AMMD EAK44466 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_791689 Pseudomonas syringae pv. tomato str. DC3000 AAO53384 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
YP_535816 Agrobacterium tumefaciens str. C58 NP_396370 AAK90350 AAL46132 oxidoreductase/Pentaerythritol tetranitrate reductase protein AGR_pAT_653 /AGR_pAT_653p /oxidoreductase
YP_259913 Pseudomonas fluorescens Pf-5 AAY92078 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
BAD90976 uncultured bacterium xenobiotic reductase B
YP_348210 Pseudomonas fluorescens PfO-1 ABA74220 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00857597 Rhodopseudomonas palustris BisA53 EAD91994 NAD(P)H dehydrogenase/GMP reductase/NADH:flavin oxidoreductase/NADH oxidase /IMP dehydrogenase/GMP reductase /NADH:flavin oxidoreductase/NADH oxidase
YP_487812 Rhodopseudomonas palustris HaA2 ABD08901 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_540739 Rhodopseudomonas palustris CGA009 CAE29944 morphinone reductase/morphinone reductase
ZP_00800742 Rhodopseudomonas palustris BisB5 EAD84940 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00847609 Rhodopseudomonas palustris BisB18 ABD86930 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_769085 Bradyrhizobium sp. BTAi1 AAZ51275 morphinone reductase/morphinone reductase
ZP_01184649 Azoarcus sp. BH72 EAN01360 morphinone reductase/morphinone reductase
ZP_01048959 Cellulophaga sp. MED134 EAQ40193 morphinone reductase/morphinone reductase
YP_963084 Pseudomonas putida NP_963098 Pseudomonas sp. ND6 AAO64286 Pseudomonas putida AAP44196 Pseudomonas sp. ND6 putative oxidoreductase/morphinone reductase /putative oxidoreductase /morphinone reductase
YP_523073 Rhodoferax ferrireducens DSM 15236 ABD69542 NADH:flavin oxidoreductase/N-ethylmaleimide reductase
ZP_00839180 Cytophaga hutchinsonii COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_01108398 Flavobacteriales bacterium HTCC2170 EAQ99628 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00550417 Rhodobacterales bacterium HTCC2654 EAQ31284 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
ZP_00507001 Polaromonas sp. JS666 EAM39997 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00509050 Prosthecochloris aestuarii DSM 271 EAN23755 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00530149 Chlorobium phaeobacteroides BS1 EAM33503 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00530870 Chlorobium phaeobacteroides BS1 EAM34076 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00511463 Chlorobium limicola DSM 245 EAM43997 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_01139544 Methanosarcina acetivorans C2A AAM04434 Fmn oxidoreductase protein/Fmn oxidoreductase protein
ZP_00599997 Methanosarcina barkeri str. fusaro AAZ69495 Fmn oxidoreductase protein/Fmn oxidoreductase protein
YP_434696 Haliangium ochraceum DSM 14365 ABC90271 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_01145803 Acidiphilium cryptum JF-5 EAR39941 xenobiotic reductase/xenobiotic reductase
ZP_00676663 Petrobacter propionicus DSM 2379 EAO37713 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00859437 Burkholderia ambifaria AMMD EAK44206 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00426247 Burkholderia vietnamiensis G4 EAM27158 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00984313 Burkholderia dolosa AUO158 COG1902: 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 EAM11627 Burkholderia cenocepacia HI2424 NADH:flavin oxidoreductase/
YP_371709 Burkholderia sp. 383 ABB31065 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00826304 Burkholderia xenovorans LB400 COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
ZP_00826347 Burkholderia xenovorans LB400 COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_437719 Burkholderia thailandensis E264 ABC06583 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00902698 rpoZ ZP_00891366 Burkholderia pseudomallei 1106a ZP_00469349 rpoZ ZP_00445068 Burkholderia mallei NCTC 10247 ZP_00935538 Burkholderia mallei JHU ZP_01024144 Burkholderia mallei 10229 YP_110886 Burkholderia pseudomallei K96243 Z.
NP_505021 Photorhabdus luminescens subsp. laumondii TTO1 CAE14246 hypothetical protein plu1975/hypothetical protein plu1975
ZP_00826254 Ralstonia eutropha JMP134 AAZ63420 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00417888 Azotobacter vinelandii AvOP BAA88211 oxidoreductase/ EAM00524 Azotobacter vinelandii AvOP NADH:flavin oxidoreductase/NADH oxidase /NAD(P)H-dependent 2-cyclohexen-1-one reductase homolog /NADH:flavin oxidoreductase/NADH oxidase
ZP_00868867 Pseudomonas putida F1 NP_743081 Pseudomonas putida KT2440 AAN65545 EAP52046 Pseudomonas putida F1 xenobiotic reductase B/xenobiotic reductase B /xenobiotic reductase B /xenobiotic reductase B
ZP_00865093 Pseudomonas aeruginosa PA7 ZP_00871841 Pseudomonas aeruginosa UCBPP-PA14 ZP_00971191 Pseudomonas aeruginosa 2192 AAG07744 Pseudomonas aeruginosa PAO1 COG1902: NADH:flavin oxidoreductases, O
YP_784113 Pseudomonas syringae pv. tomato str. DC3000 AAO57808 oxidoreductase, FAD/FMN-binding /oxidoreductase, FAD/FMN-binding
ZP_00167184 Pseudomonas syringae pv. phaseolicola 1448A AAZ35385 xenobiotic reductase B/xenobiotic reductase B
ZP_00237121 Pseudomonas syringae pv. syringae B728a AAY39083 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_347014 Pseudomonas fluorescens PfO-1 ABA75220 Pseudomonas fluorescens Pf-5 AAY90620 NADH:flavin oxidoreductase/NADH oxidase /xenobiotic reductase B /NADH:flavin oxidoreductase/NADH oxidase
YP_328464 Pseudomonas fluorescens Pf-5 AAY90620 xenobiotic reductase B/xenobiotic reductase B
ZP_00267071 Pseudomonas syringae pv. tomato str. DC3000 AAO56566 NADH:flavin oxidoreductase/NADH oxidase family protein /NADH:flavin oxidoreductase/NADH oxidase family protein
ZP_00237606 Pseudomonas syringae pv. syringae B728a AAY37968 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00509229 Shewanella baltica OS155 EAN43019 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
Smo_ATZG06050916928823_1
ZP_00243370 Rubrivivax gelatinosus PM1 COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_284325 Dechloromonas aromatica RCB AAZ48585 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
EAY81697 Xanthomonas axonopodis pv. citri str. 306 AAM92233 GTN reductase
ZP_00509039 Xanthomonas oryzae pv. oryzae KACC10331 YP_450824 Xanthomonas oryzae pv. oryzae MAFF 311018 AAW75154 Xanthomonas oryzae pv. oryzae KACC10331 BAE68550 Xanthomonas oryzae pv. oryzae MAFF 311018 GTN reductase /GTN reductase
YP_363148 Xanthomonas campestris pv. vesicatoria str. 85-10 CAJ23048 putative oxidoreductase/GTN reductase
YP_243992 Xanthomonas campestris pv. campestris str. ATCC 33913 AAM40613 AAY49972 Xanthomonas campestris pv. campestris str. 8004 GTN reductase /GTN reductase /GTN reductase
YP_445806 Salinibacter ruber DSM 13855 ABC44793 oxidoreductase, FMN-binding/oxidoreductase, FMN-binding
ZP_00525252 Anabaena variabilis ATCC 29413 YP_485905 Nostoc sp. PCC 7120 BAB75604 ABA24357 Anabaena variabilis ATCC 29413 flavin oxidoreductase/NADH oxidase /hypothetical protein all1865 /all1865 flavin oxidoreductase/NADH oxidase
ZP_00108564 Nostoc punctiforme PCC 73102 CON1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_111755 Synechococcus elongatus PCC 6301 BAD78295 similar to xenobiotic reductase/similar to xenobiotic reductase
ZP_00944092 Synechococcus elongatus PCC 7942 ABB56505 NADH:flavin oxidoreductase Old Yellow Enzyme family-like/NADH:flavin oxidoreductase/NADH oxidase Old Yellow Enzyme family-like
ZP_00646863 Methylobacillus flagellatus KT EAN03387 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_372000 Burkholderia sp. 383 ABB11356 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00671251 Thiobacillus denitrificans ATCC 25259 EAN31113 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 oxidoreductase Old Yellow Enzyme family/similar to NADH:flavin oxidoreductases Old Yellow Enzyme family
ZP_01017284 Parvularcula bermudensis HTCC2503 EAQ17795 GTN reductase/GTN reductase
YP_167825 Silicibacter pomeroyi DSS-3 AAV95860 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_01034013 Roseovarius sp. 217 EAQ26694 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00950714 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 EAP80596 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
YP_421507 Rhodospirillum rubrum ATCC 11170 ABC21260 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00462365 Burkholderia cenocepacia HI2424 ZP_00455428 Burkholderia cenocepacia AU 1054 ZP_00982136 Burkholderia cenocepacia PC184 EAM12012 Burkholderia cenocepacia AU 1054 EAM11471 Burkholderia cenocepacia HI2424 NADH:flavin oxidoreductase/
ZP_00282074 Burkholderia xenovorans LB400 COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family
YP_348176 Pseudomonas fluorescens PfO-1 ABA74186 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_113154 Methylococcus capsulatus str. Bath AAU93057 NADH-dependent flavin oxidoreductase, Oye family/NADH-dependent flavin oxidoreductase, Oye family
YP_901915 Psychromonas ingrahamii 37 ABI60440 NADH-dependent flavin oxidoreductase, Oye family protein/NADH-dependent flavin oxidoreductase, Oye family protein
ZP_00622080 Silicibacter sp. TM1040 EAN56310 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
ZP_00835618 Ralstonia sp. PV-4 EAP04157 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_719682 Shewanella oneidensis MR-1 AAN57126 N-ethylmaleimide reductase, putative/N-ethylmaleimide reductase, putative
YP_132270 Photobacterium profundum SS9 CAG20470 putative N-ethylmaleimide reductase/putative N-ethylmaleimide reductase
ZP_00989259 Vibrio splendidus 12B01 EAP59584 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_01063163 Vibrio sp. MED222 EAQ58436 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00760684 Vibrio cholerae MO10 NF_233077 Vibrio cholerae O1 biovar eltor str. N16961 ZP_00745593 Vibrio cholerae O395 AAF96889 Vibrio cholerae O1 biovar eltor str. N16961 COG1902: NADH:flavin oxidoreductases,
ZP_01150298 Photobacterium sp. SKA34 EAR56051 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_799895 Vibrio parahaemolyticus RIMD 2210633 ZP_00765397 Vibrio sp. Ex25 BAC61728 Vibrio parahaemolyticus RIMD 2210633 N-ethylmaleimide reductase/COG1902: NADH:flavin oxidoreductases, Old Yellow Enzyme family /N-ethylmaleimide reductase
YP_207007 Vibrio fischeri ES114 AAW86125 N-ethylmaleimide reductase/N-ethylmaleimide reductase
YP_937657 Vibrio vulnificus YJ016 NP_762994 Vibrio vulnificus CMCP6 AAO07984 BAC97627 Vibrio vulnificus YJ016 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase/NADH oxidase
YP_432488 Hahella chejuensis KCTC 2396 ABC28903 NADH:flavin oxidoreductase/NADH oxidase, Old Yellow Enzyme family/NADH:flavin oxidoreductase/NADH oxidase, Old Yellow Enzyme family
YP_268509 Colwellia psychrerythraea 34H AAZ25945 N-ethylmaleimide reductase/N-ethylmaleimide reductase
ZP_00773046 Rhodobacterales bacterium HTCC2654 EAQ30315 NADH:flavin oxidoreductase/NADH oxidase /NADH:flavin oxidoreductase