

CLUSTAL 2.0.11 MULTIPLE SEQUENCE ALIGNMENT

File: F:/HqdA sequence alignment.ps

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Burkholderia_ambifaria_IOP40-1 -MTDTAFHTVFGSLDSYTKGEIETSGSARHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIEFIKLDNPPTTGR---GTVSA-GTQPAGREMGVVVLKRGHQALLPAGCAYRFTAD-KPGV 143
Burkholderia_ambifaria_MC40-6 -MTDTAFHTVFGSLDSYTKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIEFIKLDNPPTTGR---GTVSA-GTQPAGREMGVVVLKRGHQALLPAGCAYRFTAD-KPGV 143
Burkholderia_ambifaria_AMMD -MTDTAFHTVFGSLDSYTKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIEFIKLDNPPTTGR---GTVSA-GTQPAGREMGVVVLKRGHQALLPAGCAYRFTAD-KPGV 143
Burkholderia_ambifaria_MEX-5 -MTDTAFHTVFGSLDSYTKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIEFIKLDNPPTTGR---GTVSA-GTQPAGREMGVVVLKRGHQALLPAGCAYRFTAD-KPGV 143
Burkholderia_multivorans_C6D2M -MTDTARHTVFGSLDSYTRGEIETSGSAKHYAFSNIFDIASKSAPYEKVVAGKNLEVVIEVLRTGESEPFACAHDEFAIQMDGEVRIDFIKLDSPPTTGR---GTVSA-GVEPAGREMGHVVLKRGHQALLPAGCAYRFTAS-KPGV 143
Burkholderia_multivorans_C6D1 -MTDTARHTVFGSLDSYTRGEIETSGSAKHYAFSNIFDIASKSAPYEKVVAGKNLEVVIEVLRTGESEPFACAHDEFAIQMDGEVRIDFIKLDSPPTTGR---GTVSA-GIRPAGREMGHVVLKRGHQALLPAGCAYRFTAS-KPGV 143
Burkholderia_multivorans_ATCC -MTDTARHTVFGSLDSYTRGEIETSGSAKHYAFSNIFDIASKSAPYEKVVAGKNLEVVIEVLRTGESEPFACAHDEFAIQMDGEVRIDFIKLDSPPTTGR---GTVSA-GIRPAGREMGVVVLKRGHQALLPAGCAYRFTAS-KPGV 143
Burkholderia_cenocepacia_HI242 -MTSTAFHTVFGSLDGYRKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIDFIKLDHPPOQAGR---GTVSA-GAHPAGRNMGVVVLKRGHQALLPAGCAYRFTAS-RPGV 143
Burkholderia_cenocepacia_J2315 -MTSTAFHTVFGSLDGYRKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACAHDEFAIQMDGEVRIDFIKLDHPPOQAGR---GTVSA-GAHPAGRNMGVVVLKRGHQALLPAGCAYRFTAS-RPGV 143
Burkholderia_sp._383 -MTDTAFHTVFGSLDHYRKGEIETSGSAQHYAFSNVFEVASKSAPYEKVVAGKNLEVVIEVLRTDGESEPFACSHDEFVIOQMDGEVRIDFIKLDTPPOQAGR---GTVSA-GMPPAGRKMGVVVLKRGHQALLPAGCAYRFTAS-RPGV 143
Burkholderia_sp._CCGE1002 -MTESSFTVFGSLDGYRKGEIETSGDARHYVFSNIFEVASEAPYQKVVVGKNDLVVIELRLTEGRSQWFACAHDEFAIQMDGEVRIDFIKLDNPPKNGT---GTVAA-GAQPAGRAMGHVVLRRGHQALLPAGCAYRFTAQ-KSGV 143
Burkholderia_sp._H160 -MTEQSFHTVFGSLDGYRKGEIETSGEARHYVFSNIFEVASEAPYQKVVVGKNDLVVIELRLTEGRSQWFACAHDEFAIQMDGEVRIDFIKLDNPPKSGT---GTVVA-GAQPAGRAMGHVVLRRGHQALLPAGCAYRFTAH-KTGV 143
Pseudomonas_sp._1-7 -MSNAAVNTVFASLDNFRKGTVEIISGEARHYAFSNIFEVAQNSKPYEKVVVGLNLGVVVEITLRAEGQSPWFTAADHDEFAIVMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGSAYRFEAS-RPGV 143
Pseudomonas_sp._WBC-3 -MSNAVNTVFASLDNFRKGTVEIISGEARHYAFSNIFEVAQNSKPYEKVVVGLNLGVVVEITLRAEGQSPWFTAADHDEFAIVMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGSAYRFEAS-RPGV 143
Pseudomonas_putida -MSTAAIKTVFGSLDGYRKGEIETSGEARHYAFSNIFEVAQNSKPYEKVVVGLNLGVVVEITLRAEGQSPWFTAADHDEFAIVMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGTAYRFESS-RPGV 143
Pseudomonas_sp._NyZ402 -MSTAAIKTVFGSLDGYRKGEIETSGEARHYAFSNIFEVAQNSKPYEKVVVGLNLGVVVEITLRAEGQSPWFTAADHDEFAIVMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGTAYRFESS-RPGV 143
Pseudomonas_aeruginosa_PA7 --MNAAIRTVFGSLDGYRKGEIETSGDARHYAFSNIFEVAARSAPYEKVVVGLNLGVVVEITLRAEGRSWPFACSHDEFVIOQMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGTAYRFESS-RPGV 142
Pseudomonas_fluorescens -MSTQPAFKTVFGSLAQYTKGSIELVTKKHAHYAFSNIFEVAAKSAPYEKVVVGANLGVVIELTLRAEGTSWPFACSHDEFVIOQMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGCAYRFEAS-NPCV 144
Variovorax_paradoxus_S110 --MTVAYQTRFGSLKHFEGKHVEPIDDDVRHYAFSNCFEIASISRPYEKVVFGQNIYVLEITLRAEGTSWPFACSHDEFVIOQMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGTAYRFESS-RPGV 147
Photorhabdus_luminescens_subsp --MLVQYKTAFASIDNHYKGGIQAALVEDPKRYVFSNMYYIAATSAFYDRIVAATNLDTTIEIARAEGTSWPFACAHDEFVVMADYDVEHVFVKLTD-ESVIDEDKDGAVKL-NGTDPGQKMGCIYLLKRGHQALLPEKVAYRFHAD-KPAT 145
Sphingomonas_sp._strain_TTNP3 ---MADVVTETFGALTDYRKGGVEIIDDPPRNYVFSNVFEVAANAAPYERVAVGKNFEYVIESARAEGTSWPFACSHDEFVIOQMDGEVRVDFLKLDPAPSKHGE---GTHLA-GELPVGKPMGYVLLKRGHQCLLPAGTAYRFESS-RPGV 146
1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150

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Burkholderia_ambifaria_IOP40-1 : * : * : * : * : * : * : 164
Burkholderia_ambifaria_MC40-6 ALVQTVLGEISVEKWADICLH--- 164
Burkholderia_ambifaria_AMMD ALVQTVLGEISVEKWADICLH--- 164
Burkholderia_ambifaria_MEX-5 ALVQTVLGEISVEKWADICLH--- 164
Burkholderia_multivorans_C6D2M ALVQTVLGEISVEKWAEICVH--- 164
Burkholderia_multivorans_C6D1 ALVQTVLGEISVEKWAEICVH--- 164
Burkholderia_multivorans_ATCC ALVQTVLGEISVEKWAEICVH--- 164
Burkholderia_cenocepacia_HI242 ALVQTVLGEISVEKWAEICLH--- 164
Burkholderia_cenocepacia_J2315 ALVQTVLGEISVEKWAEICLH--- 164
Burkholderia_sp._383 ALVQTVLGEISVEKWADICLH--- 164
Burkholderia_sp._CCGE1002 VLVQTMLEISVEKWADICLH--- 164
Burkholderia_sp._H160 ALVQTMLEISVEKWADICLH--- 164
Pseudomonas_sp._1-7 ILQQTIKGPLSVEKWAEICL--- 164
Pseudomonas_sp._WBC-3 ILQQTIKGPLSVEKWAEICL--- 164
Pseudomonas_putida LLQQTIKGPLSVEKWAEICL--- 164
Pseudomonas_sp._NyZ402 LLQQTIKGPLSVEKWADICL--- 164
Pseudomonas_aeruginosa_PA7 LLQQTILGPLSVEKWADICL--- 163
Pseudomonas_fluorescens LLQQTIVLGPLSVEKWADICL--- 165
Variovorax_paradoxus_S110 IVLTQCKGDLSEKWADICQT--- 169
Photorhabdus_luminescens_subsp LMIQSILGDVSVQKWADICLN--- 166
Sphingomonas_sp._strain_TTNP3 MLFQSIIEGAVTVQKGGICQTEAA 170
.....160.....170....

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