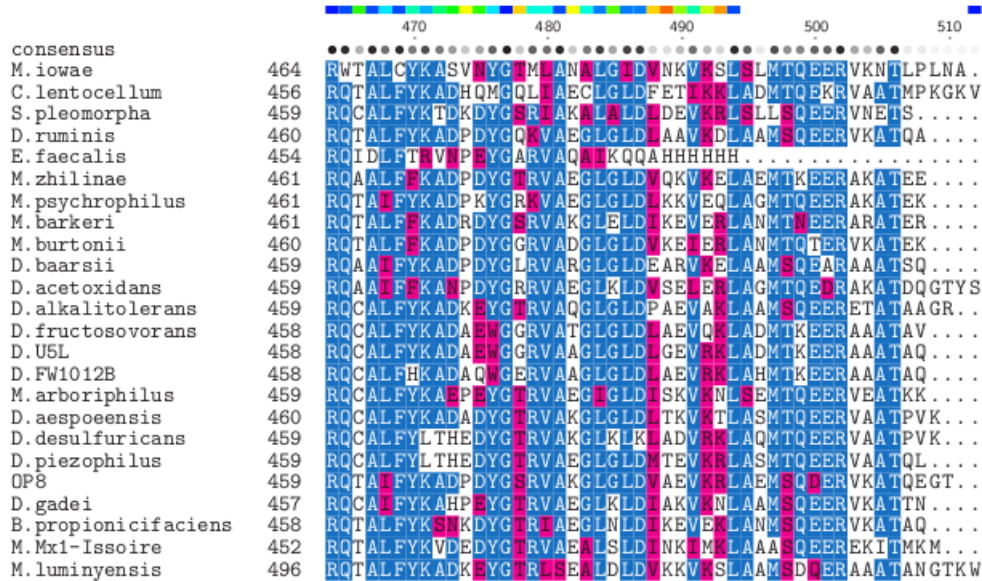


consensus
M. iowae 367 PYNQRDG³⁷⁰MTV³⁸⁰NGNYGSLPNYQPS³⁹⁰TLKGASYVDD.SDKVFPQID⁴⁰⁰NGVVK
C. lentocellum 362 LY³⁷⁰TQRDGNM³⁸⁰QVNGNMG³⁹⁰NVNYFPSSFVN.VVVSP.EVAPFP⁴⁰⁰IPVIGEIK
S. pleomorpha 363 AK³⁷⁰YQRDGSMS³⁸⁰IGGNQCKE³⁹⁰PNYWPNSIEGQPKPD.ASFSP⁴⁰⁰QIEVQAILA
D. ruminis 365 AN³⁷⁰YQRDGFMA³⁸⁰LDGNGGAS³⁹⁰PNYYPNSFGGPA⁴⁰⁰DP.QFAPFP⁴⁰⁰VDVAGMVS
E. faecalis 361 VNN³⁷⁰YQRDGMRFN³⁸⁰.NGNSEI³⁹⁰NYEPNS⁴⁰⁰YTETPKED.PTAKISSFEV⁴¹⁰EGNVS
M. zhilinae 366 EN³⁷⁰YQRDGFMR³⁸⁰VDGNGGSG³⁹⁰PNYWPNSFNGPS⁴⁰⁰DP.DALE⁴¹⁰FPFEVSGLAQ
M. psychrophilus 366 EA³⁷⁰YQRDGFMR³⁸⁰VDGNGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDS.KALE⁴¹⁰FAFKSGMAA
M. barkeri 366 EN³⁷⁰YQRDGFMR³⁸⁰VDANGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰SPDS.VYLE⁴¹⁰FPFGVSLAA
M. burtonii 365 ET³⁷⁰YQRDGFMR³⁸⁰LDANGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDP.DALE⁴¹⁰FPFEVSGKAD
D. baarsii 364 ER³⁷⁰YQRDGFMR³⁸⁰TDDGGGAG³⁹⁰PNYWPNSFNGP⁴⁰⁰GPDA.AYL⁴¹⁰EP⁴¹⁰IP⁴¹⁰LE⁴¹⁰QAA
D. acetoxidans 364 ER³⁷⁰YQRDGFMR³⁸⁰VDDNGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDP.ATE⁴¹⁰EP⁴¹⁰IP⁴¹⁰LE⁴¹⁰GLAG
D. alkalitolerans 364 EM³⁷⁰YQRDGFMR³⁸⁰TDDGGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APHA.SAK⁴¹⁰EP⁴¹⁰GFPV⁴¹⁰HDHAG
D. fructosovorans 363 AQ³⁷⁰NYQRDGFMR³⁸⁰VDDGGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDA.AAL⁴¹⁰EP⁴¹⁰DYPV⁴¹⁰HGEAG
D. U5L 363 VSN³⁷⁰YQRDGFMR³⁸⁰TDDGGGAG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDP.EAL⁴¹⁰EP⁴¹⁰IP⁴¹⁰LE⁴¹⁰GEAG
D. FW1012B 363 VAN³⁷⁰YQRDGFMR³⁸⁰TDDGGGAG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDP.EAL⁴¹⁰EP⁴¹⁰IP⁴¹⁰LE⁴¹⁰GEAG
M. arboriphilus 364 VN³⁷⁰YQRDGPMT³⁸⁰YTDNGGSG³⁹⁰PNYYPNSF⁴⁰⁰.DGPEVD.ETV⁴¹⁰TP⁴¹⁰TIE⁴¹⁰KAEIN
D. aespoensis 365 EK³⁷⁰YQRDGMRTD³⁸⁰HNGGSG³⁹⁰PNYWPNSFNGP⁴⁰⁰APDN.TSI⁴¹⁰EP⁴¹⁰IP⁴¹⁰LDG⁴¹⁰GGG
D. desulfuricans 364 EM³⁷⁰NYQRDGFMR³⁸⁰VDHNGGSG³⁹⁰PNYWPNSF⁴⁰⁰GPAPDN.VSI⁴¹⁰EP⁴¹⁰IP⁴¹⁰LE⁴¹⁰GVAQ
D. piezophilus 364 EQ³⁷⁰NYQRDGS³⁸⁰MRVDHNGGSG³⁹⁰PNYWPNS⁴⁰⁰YHGPAPDN.ISN⁴¹⁰EP⁴¹⁰YIP⁴¹⁰LE⁴¹⁰GVGG
OP8 364 VNY³⁷⁰YQRDGF³⁸⁰CFGD³⁹⁰NSG⁴⁰⁰DSPNYYPNSFNGG⁴¹⁰PEPQP.TAA⁴¹⁰EP⁴¹⁰GFDV⁴¹⁰SGTAG
D. gadei 363 MHN³⁷⁰YQRDGHM³⁸⁰NTGR³⁹⁰IFG⁴⁰⁰P⁴¹⁰TAN⁴¹⁰YYPNS⁴¹⁰VN⁴¹⁰VPY⁴¹⁰GEADGI⁴¹⁰PEAPVITFRD⁴¹⁰MAIA
B. propionificiens 365 FGH³⁷⁰YQRDGMN³⁸⁰FK.QEAG³⁹⁰PNYYPNS⁴⁰⁰FDP⁴¹⁰GPT⁴¹⁰PKD.KWAT⁴¹⁰TP⁴¹⁰IDV⁴¹⁰SGMAA
M. Mx1-Issoire 357 LN³⁷⁰YQRDGM³⁸⁰SYG.IV³⁹⁰G⁴⁰⁰TDP⁴¹⁰NYYPNS⁴¹⁰VNP⁴¹⁰DAPADP.ISYT⁴¹⁰PE⁴¹⁰ASIV⁴¹⁰DDEAM
M. luminyensis 398 VY³⁷⁰NE³⁸⁰RDGHM³⁹⁰NTGR⁴⁰⁰IFG⁴¹⁰P⁴¹⁰TAN⁴¹⁰YYPNS⁴¹⁰VN⁴¹⁰VPY⁴¹⁰GEADGI⁴¹⁰PEAPVITFRD⁴¹⁰MAIA

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consensus
M. iowae 416 GRFNYP.LE⁴²⁰VD⁴³⁰DFVCPGL⁴⁴⁰LDK⁴⁵⁰VMDDAKRS⁴⁶⁰RLHNTAST⁴⁶⁰KLADVS.IQY
C. lentocellum 410 .RHVIE.SI⁴²⁰AD⁴³⁰DFVCPG⁴⁴⁰EFYRAM⁴⁵⁰TSSDDK.AHF⁴⁶⁰LYN⁴⁶⁰VTDN⁴⁶⁰KHADPA.IQY
S. pleomorpha 412 .RHERP.SE⁴²⁰ID⁴³⁰FI⁴⁴⁰CPG⁴⁵⁰E⁴⁶⁰LYR⁴⁶⁰VMN⁴⁶⁰EQD⁴⁶⁰KEHLINNIASH⁴⁶⁰INAKH.IQY
D. ruminis 413 .RHPYV.LS⁴²⁰ID⁴³⁰DFVQAG⁴⁴⁰E⁴⁵⁰LYR⁴⁶⁰VM⁴⁶⁰SQD⁴⁶⁰DRANL⁴⁶⁰VSNICDS⁴⁶⁰GQAQQR.IQL
E. faecalis 409 .NYSYN...⁴²⁰CD⁴³⁰HFT⁴⁴⁰QANALYN⁴⁵⁰.⁴⁶⁰ILPSE⁴⁶⁰EKEN⁴⁶⁰L⁴⁶⁰IN⁴⁶⁰NI⁴⁶⁰AAS⁴⁶⁰LG⁴⁶⁰VKNQEI⁴⁶⁰IA
M. zhilinae 414 .RTPYT.HP⁴²⁰NDD⁴³⁰DFVCPG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰DD⁴⁶⁰EAR⁴⁶⁰THLVGN⁴⁶⁰IVSH⁴⁶⁰SGAVKR.IQL
M. psychrophilus 414 .RTPYT.HP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰NDE⁴⁶⁰DRKN⁴⁶⁰LG⁴⁶⁰NI⁴⁶⁰VSH⁴⁶⁰SGA⁴⁶⁰IKS.IQL
M. barkeri 414 .RTL⁴²⁰YT.HP⁴³⁰NDD⁴⁴⁰DFVQAG⁴⁵⁰NLYR⁴⁶⁰VM⁴⁶⁰T⁴⁶⁰DY⁴⁶⁰DR⁴⁶⁰ENLVGN⁴⁶⁰IVSH⁴⁶⁰SGAAQKR.IQL
M. burtonii 413 .RTPYV.HS⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰DD⁴⁶⁰QAR⁴⁶⁰ENLVGN⁴⁶⁰IVSH⁴⁶⁰SGAAQKR.IQL
D. baarsii 412 .RTPYG.HP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰T⁴⁶⁰DQ⁴⁶⁰DR⁴⁶⁰HLVGN⁴⁶⁰IVSH⁴⁶⁰LAGALPR.IQL
D. acetoxidans 412 .RYPYR.FP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰T⁴⁶⁰DR⁴⁶⁰D⁴⁶⁰HLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQY
D. alkalitolerans 412 .RFAYT.HP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰DLYR⁴⁵⁰VM⁴⁶⁰SK⁴⁶⁰DR⁴⁶⁰DNLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQL
D. fructosovorans 411 .RHAYA.HP⁴²⁰NDD⁴³⁰DHS⁴⁴⁰CPG⁴⁵⁰E⁴⁶⁰LYR⁴⁶⁰AM⁴⁶⁰ND⁴⁶⁰MD⁴⁶⁰REHLVGN⁴⁶⁰IVSH⁴⁶⁰KN⁴⁶⁰AVPR.IQK
D. U5L 411 .RFAYT.HP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰DLYR⁴⁵⁰VM⁴⁶⁰SK⁴⁶⁰DR⁴⁶⁰DNLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQK
D. FW1012B 411 .RFASY.HP⁴²⁰NDD⁴³⁰DFVQAG⁴⁴⁰DLYR⁴⁵⁰VM⁴⁶⁰SK⁴⁶⁰DR⁴⁶⁰DNLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQK
M. arboriphilus 412 .RHPRP.VE⁴²⁰VD⁴³⁰DFVCPG⁴⁴⁰E⁴⁵⁰LYR⁴⁶⁰VM⁴⁶⁰SD⁴⁶⁰QD⁴⁶⁰DR⁴⁶⁰HLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQY
D. aespoensis 413 .RHEA.HK⁴²⁰NDD⁴³⁰DFVCPG⁴⁴⁰NLYR⁴⁵⁰VM⁴⁶⁰TE⁴⁶⁰QDRANL⁴⁶⁰VSNILGS⁴⁶⁰LG⁴⁶⁰QTPK.IQL
D. desulfuricans 412 .RHVYT.HP⁴²⁰NDD⁴³⁰DFVCPG⁴⁴⁰TLYSV⁴⁵⁰VM⁴⁶⁰TE⁴⁶⁰QDRKNL⁴⁶⁰VSNIVGS⁴⁶⁰QS⁴⁶⁰VPP.IQL
D. piezophilus 412 .RHEAT.HP⁴²⁰NDD⁴³⁰DFVCPG⁴⁴⁰TLYGT⁴⁵⁰VM⁴⁶⁰SD⁴⁶⁰QDR⁴⁶⁰THL⁴⁶⁰IN⁴⁶⁰ILGS⁴⁶⁰ES⁴⁶⁰VPTP.IQL
OP8 412 .RHPYT.LS⁴²⁰DD⁴³⁰DFVQAG⁴⁴⁰E⁴⁵⁰LYR⁴⁶⁰VM⁴⁶⁰T⁴⁶⁰DR⁴⁶⁰D⁴⁶⁰HLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQL
D. gadei 410 .RHEYP.LG⁴²⁰ID⁴³⁰DFVQAG⁴⁴⁰ALYS⁴⁵⁰AM⁴⁶⁰SD⁴⁶⁰YDR⁴⁶⁰SNL⁴⁶⁰IS⁴⁶⁰NI⁴⁶⁰VGH⁴⁶⁰KN⁴⁶⁰AAQQR.IQY
B. propionificiens 411 .RHEYE.VG⁴²⁰ID⁴³⁰DFVQAG⁴⁴⁰DLYAK⁴⁵⁰VM⁴⁶⁰T⁴⁶⁰QD⁴⁶⁰R⁴⁶⁰THL⁴⁶⁰IN⁴⁶⁰ILGH⁴⁶⁰KGA⁴⁶⁰QKR.IQL
M. Mx1-Issoire 405 .RHQVP.ID⁴²⁰VD⁴³⁰DFVQAG⁴⁴⁰ALYS⁴⁵⁰AM⁴⁶⁰SD⁴⁶⁰YDR⁴⁶⁰SNL⁴⁶⁰IS⁴⁶⁰NI⁴⁶⁰VGH⁴⁶⁰KN⁴⁶⁰AAQQR.IQY
M. luminyensis 448 .RHRVPETD⁴²⁰DD⁴³⁰DFVQAG⁴⁴⁰E⁴⁵⁰LYR⁴⁶⁰VM⁴⁶⁰SD⁴⁶⁰QD⁴⁶⁰DR⁴⁶⁰HLVGN⁴⁶⁰IVSH⁴⁶⁰LAGA⁴⁶⁰QKR.IQY

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- [X] non conserved
- [X] similar
- [X] ≥ 50% conserved
- * Heme Binding site