

Label	Gene	Product	Pelobacter carbinolicus DSM 2380 [NC_007498]	Syntrophus aciditrophicus SB [NC_007759]	Syntrophobacter fumaroxidans MPOB [NC_008554]	Pelobacter propionicus DSM 2379 [NZ_AAJH]	Syntrophomonas wolfei subsp. wolfei str. Goettingen [NC_008346]	Candidatus Kuenenia stuttgartiensis	Thermoanaerobacter tengcongensis MB4 [NC_003869]
Cloam0005	pgpA	phosphatidylglycerophosphatase A	PCAR_2402	SYN_02031	SFUM_2321			kuste2265	
Cloam0007	def-	polypeptide deformylase	PCAR_0245 PCAR_2534		SFUM_0147	PproDRAFT_3526 PproDRAFT_2115	SWOL_1232	kuste3758	TTE1507
Cloam0022	_	putative tartrate dehydratase alpha subunit (ttdA)/Fumarate hydratase class I, alpha chain (N-terminal)		SYN_00159		PproDRAFT_1500		kuste3110	TTE0075
Cloam0023	_	putative tartrate dehydratase beta subunit (ttdB)/fumarate hydratase class I, beta chain (C-terminal)		SYN_00158	SFUM_2336	PproDRAFT_1500	SWOL_1628	kuste3111	TTE0076
Cloam0112	_	putative Molecular chaperone (small heat shock protein)	PCAR_0369	SYN_00029	SFUM_1742 SFUM_2860				TTE2578
Cloam0177	ftcd	Formimidoyltransferase-cyclodeaminase (Formiminotransferase-cyclodeaminase) (FTCD) [Includes: Glutamate formimidoyltransferase (Glutamate formiminotransferase) (Glutamate formyltransferase); Formimidoyltetrahydrofolate cyclodeaminase (Formiminotetrahydrofolate cyclodeaminase)]		SYN_00461 (N-term)				kustc0382 (N-term)	TTE0450 TTE0456
Cloam0281	dapB	dihydrodipicolinate reductase (DHPR)	PCAR_2422					kustc0999	TTE0831
Cloam0287	ung	Uracil-DNA glycosylase	PCAR_2009	SYN_02178	SFUM_1040	PproDRAFT_1979	SWOL_1870	kustc0725	TTE0077
Cloam0295	korC	2-oxoglutarate ferredoxin oxidoreductase, gamma chain	PCAR_1028 PCAR_1547	SYN_00157 SYN_02500	SFUM_0015 SFUM_0299 SFUM_1168 SFUM_3140	PproDRAFT_0816		kustc0447	TTE1211 TTE1342
Cloam0296	korB	2-oxoglutarate ferredoxin oxidoreductase, beta chain	PCAR_1029 PCAR_1546	SYN_03163 SYN_02499	SFUM_1167 SFUM_3139	PproDRAFT_0817	SWOL_0037 SWOL_1399	kustc0358 kustc1056	TTE1210 TTE1341
Cloam0297	korA	2-oxoglutarate ferredoxin oxidoreductase, alpha chain	PCAR_1030 PCAR_1545	SYN_02498	SFUM_0017 SFUM_0301 SFUM_1166 SFUM_3138	PproDRAFT_2555 PproDRAFT_0818	SWOL_0036 SWOL_1400	kustc0357 kustc1055	TTE0961 TTE1209 TTE1340 TTE2198
Cloam0298	korD	putative 2-oxoglutarate ferredoxin oxidoreductase, delta chain (partial)	PCAR_1031	SYN_02497	SFUM_1165	PproDRAFT_0839	SWOL_1401	kustc1054	TTE1349

Cloam0324	por-like	putative pyruvate-ferredoxin oxidoreductase (por-like) or pyruvate-flavodoxin oxidoreductase (ydbK-like), 4Fe-4S domain	PCAR_0377 PCAR_1034	SYN_00155 SYN_02201		PproDRAFT_2765 PproDRAFT_2790		kuste4371	TTE0445
Cloam0445	hcp	Hydroxylamine reductase (Hybrid-cluster protein) (HCP)	PCAR_0837 PCAR_2872	SYN_02614 SYN_02993	SFUM_3446	PproDRAFT_2430 PproDRAFT_0430 PproDRAFT_0717	SWOL_2190		TTE2772
Cloam0448	hydEF	Fe-hydrogenase assembly protein (partial, N-terminal), S-adenosylmethionine(SAM) radical protein	PCAR_1607 PCAR_1632 PCAR_1722	SYN_02134	SFUM_0841 SFUM_1844	PproDRAFT_3330	SWOL_1020	kustc0276	TTE1073 TTE1885
Cloam0762	_	putative tetraacyldisaccharide 4'-kinase	PCAR_1261	SYN_01563		PproDRAFT_0658			
Cloam0804	mutB	Methylmalonyl-CoA mutase large subunit (MCM-alpha)			SFUM_0457 SFUM_0458	PproDRAFT_2511 PproDRAFT_2234			TTE1217 TTE1218 TTE2388 TTE2389
Cloam0805	argK	ATPase/kinase associated with arginine transport			SFUM_0456	PproDRAFT_2510 PproDRAFT_2233			TTE2387
Cloam0806	_	putative bifunctional signal transducer for sigma factor regulation / phosphoserine phosphatase		SYN_02359	SFUM_2204	PproDRAFT_3299			
Cloam0896	_	putative tRNA (5-methylaminomethyl-2-thiouridylate)-methyltransferase / fibronectin/fibrinogen-binding protein (EC 2.1.1.61)	PCAR_2769	SYN_01419	SFUM_1061	PproDRAFT_2331	SWOL_1163	kustc0769	
Cloam0902	_	putative enzyme with radical SAM domain	PCAR_0308	SYN_01240	SFUM_0354 SFUM_1995	PproDRAFT_1527	SWOL_2293	kustd1804	TTE1955
Cloam0918	hgdC	Activator of (R)-2-hydroxyglutaryl-CoA dehydratase	PCAR_2727	SYN_01576 SYN_00371	SFUM_1829 SFUM_3160	PproDRAFT_2504	SWOL_0411 SWOL_0428 SWOL_0452 SWOL_0632 SWOL_2557	kuste3118 kuste2937 kuste2937	TTE0319 TTE1113 TTE1991
Cloam0921	hydG	Fe-hydrogenase assembly protein, S-adenosylmethionine radical (SAM) protein	PCAR_0340 PCAR_0608 PCAR_1631	SYN_02133	SFUM_0842 SFUM_1822 SFUM_1841	PproDRAFT_3329	SWOL_1022	kustc0273	TTE1568
Cloam0936	_	DNA/RNA helicases, SNF2 family		SYN_01827		PproDRAFT_2831	SWOL_1550	kustc0342	
Cloam0991	_	MotA/ToIQ/ExbB proton channel family protein (fragment)	PCAR_0848 PCAR_1505 PCAR_2978	SYN_00185				kustc0780 kustc0915	TTE0631
Cloam1001	vorD	pyruvate:ferredoxin and related 2-oxoacid:ferredoxin oxidoreductases, delta subunit	PCAR_1544 PCAR_2248	SYN_02496	SFUM_0302 SFUM_3137	PproDRAFT_0839	SWOL_1401	kustc0356 kustc1054 kustc0566	TTE1216 TTE1601 TTE2199

Cloam1002	vorA	pyruvate:ferredoxin and related 2-oxoacid:ferredoxin oxidoreductases, alpha subunit	PCAR_1030 PCAR_1545	SYN_02498	SFUM_0017 SFUM_0301 SFUM_1166 SFUM_3138	PproDRAFT_2555 PproDRAFT_0818	SWOL_0036 SWOL_1400	kustc0357 kustc1055 kustc1117	TTE1209 TTE1340 TTE2198
Cloam1003	vorB	pyruvate:ferredoxin and related 2-oxoacid:ferredoxin oxidoreductases, beta subunit	PCAR_1029 PCAR_1546	SYN_02499	SFUM_0016 SFUM_0300 SFUM_1167 SFUM_3139	PproDRAFT_0817	SWOL_0037 SWOL_1399	kustc0358 kustc1056	TTE1210 TTE1341
Cloam1004	vorC	pyruvate:ferredoxin and related 2-oxoacid:ferredoxin oxidoreductases, gamma subunit	PCAR_1028 PCAR_1547	SYN_02500	SFUM_0299 SFUM_1168 SFUM_3140	PproDRAFT_0816	SWOL_0038 SWOL_1398	kustc0359	TTE1342
Cloam1022	hppA	Pyrophosphate-energized proton pump (Pyrophosphate-energized inorganic pyrophosphatase) (H ⁺ -PPase) (Membrane-bound proton-translocating pyrophosphatase)	PCAR_2001	SYN_02772	SFUM_2995 SFUM_3037	PproDRAFT_0649		kustd1836	TTE0284
Cloam1037	iorB	indolepyruvate ferredoxin oxidoreductase, beta chain	PCAR_1568	SYN_01198	SFUM_0299 SFUM_4076	PproDRAFT_0559	SWOL_1195		TTE2193
Cloam1038	iorA	indolepyruvate ferredoxin oxidoreductase, alpha chain	PCAR_1567 PCAR_2117	SYN_01197	SFUM_4075	PproDRAFT_0560	SWOL_1196		TTE2194
Cloam1039	_	putative 4-alpha-glucanotransferase	PCAR_0554	SYN_01069	SFUM_3452	PproDRAFT_3725 PproDRAFT_3112		kuste3059	
Cloam1069	_	putative lipid-A-disaccharide synthase	PCAR_1258	SYN_01565		PproDRAFT_0662		kuste4276	
Cloam1167	pcm	L-isoaspartate protein carboxylmethyltransferase type II	PCAR_1427	SYN_01000	SFUM_2181 SFUM_2480	PproDRAFT_0494 PproDRAFT_0095	SWOL_2438	kustc1123	
Cloam1168	surE	broad specificity 5'(3')-nucleotidase and polyphosphatase	PCAR_1426	SYN_01984	SFUM_1169	PproDRAFT_0493	SWOL_1150	kuste3079	TTE1338
Cloam1180	hymC	[Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit alpha	PCAR_1605 PCAR_1633 PCAR_2502	SYN_00151 SYN_01370 SYN_02427 SYN_01649	SFUM_0844 SFUM_0848 SFUM_2714	PproDRAFT_3331	SWOL_1017 SWOL_1925 SWOL_2436		TTE0894
Cloam1181		putative [Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit beta (hymB-like)	PCAR_0208 PCAR_0834 PCAR_0914 PCAR_1604 PCAR_1634 PCAR_1844 PCAR_2708	SYN_00631 SYN_02426 SYN_01648	SFUM_0845 SFUM_1955 SFUM_2704 SFUM_2713	PproDRAFT_3523 PproDRAFT_3332 PproDRAFT_2631	SWOL_0657 SWOL_0784 SWOL_1018 SWOL_1024 SWOL_1701 SWOL_1828	kuste2664 kuste2507 kustd1551 kustc0827 kustc0713 nuoF	TTE0893
Cloam1182		putative [Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit gamma (hymA-like)	PCAR_0207 PCAR_0833 PCAR_0913 PCAR_1602 PCAR_1636 PCAR_1846	SYN_00153 SYN_02139 SYN_01369 SYN_02425 SYN_01647	SFUM_0846 SFUM_1956 SFUM_2703 SFUM_2712	PproDRAFT_3521 PproDRAFT_3333	SWOL_0656 SWOL_0783 SWOL_1019 SWOL_1025 SWOL_1702 SWOL_1829	kuste2663 kuste2509 kustd1552 kustc0826 kustc0714 nuoE	TTE0890

Cloam1183	hymB	[Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit beta	PCAR_0208 PCAR_0834 PCAR_0914 PCAR_1604 PCAR_1634 PCAR_1844 PCAR_2708	SYN_00631 SYN_02426 SYN_01648	SFUM_0845 SFUM_1955 SFUM_2704 SFUM_2713	PproDRAFT_3523 PproDRAFT_3332 PproDRAFT_2631	SWOL_0657 SWOL_0784 SWOL_1018 SWOL_1024 SWOL_1701 SWOL_1828	kustc0713 kustd0827 kustd1551 kuste2507 kuste2664 nuoF	TTE0893
Cloam1184		putative ferredoxin, 2Fe-2S (thioferredoxin-like [2Fe-2S] ferredoxin) (hymB-like partial match)	PCAR_1603			PproDRAFT_3522		kuste2507 kustd1551 kustc0827 nuoF	TTE0892
Cloam1186	hymA	[Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit gamma	PCAR_0207 PCAR_0833 PCAR_0913 PCAR_1602 PCAR_1636 PCAR_1846	SYN_00153 SYN_02139 SYN_01369 SYN_02425 SYN_01647	SFUM_0846 SFUM_1956 SFUM_2703 SFUM_2712	PproDRAFT_3521 PproDRAFT_3333	SWOL_0656 SWOL_0783 SWOL_1019 SWOL_1025 SWOL_1702 SWOL_1829	kuste2509 kustd1552 kustc0826 kustc0714 nuoE	TTE0890
Cloam1250		putative 4Fe-4S ferredoxin-type protein (yccM)	PCAR_1070	SYN_02058	SFUM_1960	PproDRAFT_0474	SWOL_2462	kuste4192	TTE1096
Cloam1251		putative ferredoxin, 4Fe-4S; putative signal peptide					SWOL_2105	kuste4015	
Cloam1253	nrdD	Anaerobic ribonucleoside-triphosphate reductase (Oxygen-sensitive ribonucleoside-triphosphate reductase)	PCAR_2734	SYN_03522			SWOL_2273	kustd1730	TTE1850
Cloam1254	nrdG	putative anaerobic ribonucleotide reductase activating enzyme	PCAR_2732	SYN_03523			SWOL_2272	kustd1729	TTE1849
Cloam1255	_	putative enzyme with radical SAM domain protein (Fe-S oxidoreductase)	PCAR_2195 PCAR_2585	SYN_00436 SYN_01355	SFUM_1610 SFUM_3475	PproDRAFT_3707 PproDRAFT_2268	SWOL_1616	kustd1893	TTE0909
Cloam1334	_	radical SAM domain protein	PCAR_1897			PproDRAFT_2559		kuste4178	
Cloam1367	rbr	rubrerythrin (RR) (rubredoxin-dependent, iron-containing peroxidase)	PCAR_0084 PCAR_2346 PCAR_2797	SYN_00469 SYN_02523	SFUM_2468 SFUM_3252	PproDRAFT_1924 PproDRAFT_1433	SWOL_0670	kuste4364	TTE0487
Cloam1368	rub	rubredoxin-type Fe(Cys) ₄ protein	PCAR_1856 PCAR_2460 PCAR_2796	SYN_02123 SYN_01385 SYN_01383 SYN_02492	SFUM_0689 SFUM_2935 SFUM_3222	PproDRAFT_2160 PproDRAFT_1971	SWOL_2054	kustc0323 kustc1169 kustd2038	TTE0487 TTE2154
Cloam1471	ahcY	S-adenosyl-L-homocysteine hydrolase	PCAR_1924	SYN_00416	SFUM_0366	PproDRAFT_2020	SWOL_1128	kustb0200	
Cloam1492	_	putative enzyme with radical SAM domain protein (Fe-S oxidoreductase)		SYN_01173	SFUM_0361	PproDRAFT_1436		kuste4353	
Cloam1513	_	putative Na ⁺ -transporting methylmalonyl-CoA/oxaloacetate decarboxylase, beta subunit		SYN_01431 SYN_00115	SFUM_3585			kustd2061	TTE0252 TTE1215 TTE1798

Cloam1515	-	putative enzyme with radical SAM domain protein (Fe-S oxidoreductase)		SYN_03236 SYN_01999	SFUM_0616 SFUM_1696	PproDRAFT_1841			TTE1779
Cloam1517	-	conserved hypothetical protein; putative Fe-S oxidoreductase, related to NifB/MoaA family				PproDRAFT_0158	SWOL_1326		TTE1620
Cloam1523	rnfB	electron transport complex protein rnfB, polyferredoxin subunit (rnfB module)	PCAR_0264	SYN_00628 SYN_01658	SFUM_2694 SFUM_2793			kustd1690	
Cloam1524	rnfA	electron transport complex protein rnfA polyferredoxin subunit	PCAR_0260 PCAR_0265	SYN_01659	SFUM_2695			kustc0732	
Cloam1525	rnfE	electron transport complex protein rnfE, polyferredoxin subunit	PCAR_0260	SYN_01661	SFUM_2696			kustc0731	
Cloam1527	rnfD	electron transport complex protein rnfD, polyferredoxin subunit	PCAR_0262	SYN_01663	SFUM_2698			kuste4658	
Cloam1528	rnfC	electron transport complex protein rnfC, NAD and 4Fe-4S binding, polyferredoxin subunit	PCAR_0263	SYN_01664	SFUM_2699			kuste4657	
Cloam1683	-	putative enzyme with radical SAM domain protein (Fe-S oxidoreductase)	PCAR_0494			PproDRAFT_2612	SWOL_1016		TTE0992
Cloam1685		[Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit beta (hymB-like); putative signal peptide	PCAR_0208 PCAR_0834 PCAR_0914 PCAR_1604 PCAR_1634 PCAR_1844 PCAR_2708	SYN_00152 SYN_00631 SYN_02139 SYN_01369 SYN_02426 SYN_01648	SFUM_0845 SFUM_1955 SFUM_2704 SFUM_2713	PproDRAFT_3523 PproDRAFT_3332 PproDRAFT_2631	SWOL_0657 SWOL_0784 SWOL_1018 SWOL_1024 SWOL_1701 SWOL_1828	kustc0827 kustc0713 kustd1551 kuste2664 kuste2507	TTE0893 TTE1605
Cloam1686		[Fe] hydrogenase (Fe-only hydrogenase) (ferredoxin bidirectional hydrogenase), subunit gamma (hymA-like)	PCAR_0833 PCAR_0913 PCAR_1602 PCAR_1636 PCAR_1846	SYN_00153 SYN_02425 SYN_01647	SFUM_0846 SFUM_1956 SFUM_2703 SFUM_2712	PproDRAFT_3521 PproDRAFT_3797 PproDRAFT_3333 PproDRAFT_2630	SWOL_0656 SWOL_0783 SWOL_1019 SWOL_1025 SWOL_1702 SWOL_1829	kustc0826 kustc0714 kustd1552 kuste2663 kuste2509	TTE0890
Cloam1702	gmhA	phosphoheptose isomerase	PCAR_1270	SYN_01980	SFUM_3206	PproDRAFT_0702		kuste3303	TTE0762
Cloam1876	fprA	Nitric oxide reductase (Type A flavoprotein) (FMN-protein) (Flavoprotein A)	PCAR_2795 PCAR_2871	SYN_00511	SFUM_3253	PproDRAFT_2432 PproDRAFT_0428 PproDRAFT_0625	SWOL_2054 SWOL_2363	kuste3160	TTE1000

Supplementary Table 4 : Set of genes shared between *Cloacamonas acidaminovorans* and 7 anaerobic bacterial genomes showing the highest similarity results. Bacterial genomes known to develop syntrophic interactions are shown in red (see Suppl. Table 1). Homologous genes have been computed using a blastP alignment threshold of at least 30% sequence identity on 80% of the length of the smallest protein. Corresponding gene locus_tag of each compared genome are given. The selection shown here is limited to mainly metabolic functions involved in anaerobic conditions.