

Predicted Methylators

Strain	Experimental Verification	Phylum	Taxonomic Class	Gold Card ID	Locus Tag	
					<i>hgcA</i>	<i>hgcB</i>
Desulfovibrio desulfuricans ND132	(1)	Proteobacteria	Deltaproteobacteria	Gi03061	DND132_1056	DND132_1057
Desulfovibrio aespoensis Aspo-2	(2)	Proteobacteria	Deltaproteobacteria	Gc01651	Daes_2662	Daes_2663
Desulfovibrio africanus str. Walvis Bay ATCC 19997	(3)	Proteobacteria	Deltaproteobacteria	Gi03062	Desaf_0117	Desaf_0115
Desulfovibrio africanus "Benghazi" DSM 2603	(1) (2)	Proteobacteria	Deltaproteobacteria	Gi11412	H585DRAFT_02628	H585DRAFT_02630
Desulfovibrio oxycloinae DSM 11498		Proteobacteria	Deltaproteobacteria	Gi11435	B149DRAFT_02526	B149DRAFT_02527
Desulfovibrio africanus PCS		Proteobacteria	Deltaproteobacteria	Gi0038787	PCS_01240	PCS_01242
Desulfovibrio longus DSM 6739		Proteobacteria	Deltaproteobacteria	Gi11432	G452DRAFT_0876	G452DRAFT_0877
Desulfovibrio putialis DSM 16056		Proteobacteria	Deltaproteobacteria	Gi11438	G453DRAFT_01225	G453DRAFT_01226
Desulfovibrio inopinatus DSM 10711		Proteobacteria	Deltaproteobacteria	Gi11429	G451DRAFT_03295	G451DRAFT_03241
Desulfococcus vexinensis DSM 17965		Proteobacteria	Deltaproteobacteria	Gi11383	G495DRAFT_00268	G495DRAFT_00269
Desulfomicrobium baculatum X DSM 4028	(6)	Proteobacteria	Deltaproteobacteria	Gc01026	Dbac_0376	Dbac_0375
Desulfomicrobium escambiense DSM 10707	(7)	Proteobacteria	Deltaproteobacteria	Gi11388	G394DRAFT_03349	G394DRAFT_03348
Desulfobulbus propionicus 1pr3 DSM 2032	(4)	Proteobacteria	Deltaproteobacteria	Gc01599	Despr_0439	Despr_0438
Desulfobulbus mediterraneus DSM 13871		Proteobacteria	Deltaproteobacteria	Gi11381	G494DRAFT_03180	G494DRAFT_03174
Desulfobulbus japonicus DSM 18378		Proteobacteria	Deltaproteobacteria	Gi11380	G493DRAFT_01620	G493DRAFT_01621
Desulfospira joergensenii DSM 10085		Proteobacteria	Deltaproteobacteria	Gi13787	F608DRAFT_3039	F608DRAFT_3040
Desulfotignum phosphitoxidans FiPS-3 DSM 13687		Proteobacteria	Deltaproteobacteria	Gpto33577	Dpo_8c00130	Dpo_8c00140
Desulfotignum balticum DSM 7044		Proteobacteria	Deltaproteobacteria	Gi13788	K365DRAFT_3864	K365DRAFT_3863
uncultured Desulfobacterium sp.		Proteobacteria	Deltaproteobacteria		N47_A07900	N47_A07910
Desulfonatronospira thiodismutans ASO3-1	(6)	Proteobacteria	Deltaproteobacteria	Gi02999	Dthio_PD1043	Dthio_PD1042
Desulfonatronovibrio hydrogenovorans DSM 9292		Proteobacteria	Deltaproteobacteria	Gi11390	P771DRAFT_2608	P771DRAFT_2607
Desulfonatronum lacustre Z-7951 DSM 10312		Proteobacteria	Deltaproteobacteria	Gi03017	DeslaDRAFT_0127	DeslaDRAFT_0126
Geobacter sulfurreducens PCA DSM 12127 ATCC 51573	(5)	Proteobacteria	Deltaproteobacteria	Gc00166	GSU1440	GSU1441
Geobacter sulfurreducens DL-1 / KN400		Proteobacteria	Deltaproteobacteria	Gc01305	KN400_1466	KN400_1468
Geobacter metallireducens GS-15	(5)	Proteobacteria	Deltaproteobacteria	Gc00314	Gmet_1240	Gmet_1241
Geobacter metallireducens RCH3		Proteobacteria	Deltaproteobacteria	Gi06445	GeomeDRAFT_0749	GeomeDRAFT_0748
Geobacter sp. daltonii FRC-32	(6)	Proteobacteria	Deltaproteobacteria	Gc00945	Geob_2483	Geob_2482
Geobacter sp. M18		Proteobacteria	Deltaproteobacteria	Gc01644	GM18_1031	GM18_1032
Geobacter sp. M21		Proteobacteria	Deltaproteobacteria	Gc01078	GM21_3091	GM21_3090
Geobacter uraniireducens Rf4		Proteobacteria	Deltaproteobacteria	Gc00560	Gura_0480	Gura_0481
Geobacter bemidjensis Bem DSM 16622	(6)	Proteobacteria	Deltaproteobacteria	Gc00849	Gbem_1183	Gbem_1184
Geobacter bremensis R1		Proteobacteria	Deltaproteobacteria	Gi22507	K419DRAFT_03561	K419DRAFT_03560
Geopsychrobacter electrodiphilus DSM 16401		Proteobacteria	Deltaproteobacteria	Gi11526	D888DRAFT_1606	D888DRAFT_1605
Syntrophorhabdus aromaticivorans UI		Proteobacteria	Deltaproteobacteria	Gi05848	SynarDRAFT_0655	SynarDRAFT_0656
Desulfomonile tiedjei DCB-1 DSM 6799		Proteobacteria	Deltaproteobacteria	Gc02250	Desti_1022	Desti_1023
Syntrophus aciditrophicus SB	(6)	Proteobacteria	Deltaproteobacteria	Gc00341	SYN_00351	SYN_00352
delta proteobacterium MLMS-1		Proteobacteria	Deltaproteobacteria	Gi01532	MldDRAFT_0620 MldDRAFT_2280	MldDRAFT_0621 MldDRAFT_2279
delta proteobacterium NaphS2		Proteobacteria	Deltaproteobacteria	Gi06365	NPH_5533	NPH_5534
Deferrisoma camini S3R1		Proteobacteria	Deltaproteobacteria	Gi14060	DefcaDRAFT_2106	DefcaDRAFT_2107
Clostridium tunisiense TJ DSM 15206		Firmicutes	Clostridia	Gi21822	C661DRAFT_03759	C661DRAFT_03760
Clostridium straminisolvans JCM 21531		Firmicutes	Clostridia	Gi0069772	JCM21531_3779	JCM21531_3778
Clostridium cellobioparum ATCC 15832		Firmicutes	Clostridia	Gi15295	T344DRAFT_03993	T344DRAFT_03994

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Syntrophobotulus glycolicus FIGlyR DSM 8271		Firmicutes	Clostridia	Gc01670	Sgly_2352	Sgly_2351
Dehalobacter restrictus DSM 9455		Firmicutes	Clostridia	Gi05571	Dehre_1982	Dehre_1981
Dehalobacter sp. CF		Firmicutes	Clostridia	Gi22845	DCF50_p1170	DCF50_p1169
Dehalobacter sp. 11DCA		Firmicutes	Clostridia	Gi16902	DHBDCA_p1092	DHBDCA_p1091
Dehalobacter sp. E1		Firmicutes	Clostridia	Gi14784	L621??	L621??
Dehalobacter sp. FTH1		Firmicutes	Clostridia	Gi14785	A37GDRAFT_03566	A37GDRAFT_03565
Dehalobacter sp. UNSWDHB		Firmicutes	Clostridia	Gi0055386	n/a	n/a
Desulfotobacterium dehalogenans ATCC 51507 DSM 9161	(6)	Firmicutes	Clostridia	Gi04867	Desde_2772	Desde_2771
Desulfotobacterium dichloroeliminans LMG P-21439		Firmicutes	Clostridia	Gi09801	Desdi_0780	Desdi_0781
Desulfotobacterium metallireducens DSM 15288	(6)	Firmicutes	Clostridia	Gi08580	Desme_1742	Desme_1741
Desulfotobacterium sp. PCE1 DSM 10344		Firmicutes	Clostridia	Gi12094	DesPCE1DRAFT_2748	DesPCE1DRAFT_2747
Desulfosporosinus acidiphilus SJ4 DSM 22704	(6)	Firmicutes	Clostridia	Gi08592	Desaci_1621	Desaci_1622
Desulfosporosinus orientis DSM 765		Firmicutes	Clostridia	Gc02026	Desor_2652	Desor_2653
Desulfosporosinus sp. OT		Firmicutes	Clostridia	Gi08558	DOT_5808	DOT_5807
Desulfosporosinus youngiae DSM 17734	(6)	Firmicutes	Clostridia	Gi07596	DesyoDRAFT_4238	DesyoDRAFT_4237
Ethanoligenens harbinense YUAN-3	(6)	Firmicutes	Clostridia	Gc01658	Ethha_0975	Ethha_0976
Acetivibrio cellulolyticus CD2		Firmicutes	Clostridia	Gi03917	AcelC_020100000280	AcelC_020100000285
Dethiobacter alkaliphilus AHT 1	(6)	Firmicutes	Clostridia	Gi02093	DealDRAFT_3158	DealDRAFT_3157
Clostridium termitidis CT1112		Firmicutes	Clostridia	Gi18090	CTER_2596	CTER_2595
Acetonema longum APO-1 DSM 6540	(6)	Firmicutes	Negativicutes	Gi11064	ALO_18015	ALO_18010
Dehalococcoides mccartyi DCMB5		Chloroflexi	Dehalococcoidetes	Gi18019	dcmb_330	dcmb_329
Chrysiogenes arsenatis DSM 11915		Chrysiogenetes	Chrysiogenetes	Gi0057376	GCAORF2211	GCAORF2212
Atribacteria bacterium SCGC AAA255-N14 (SAK_001_136)		unclassified		Gi0019854	A255N14DRAFT_00003	A255N14DRAFT_00002
Methanoregula boonei 6A8		Euryarchaeota	Methanomicrobia	Gc00629	Mboo_0422	Mboo_0421
Methanoregula formicum SMSP		Euryarchaeota	Methanomicrobia	Gi08756	Metfor_0951	Metfor_0952
Methanosphaerula palustris E1-9c DSM 19958		Euryarchaeota	Methanomicrobia	Gc01080	Mpal_1034	Mpal_1035
Methanofollis liminatans GKZPZ DSM 4140		Euryarchaeota	Methanomicrobia	Gi02537	Metli_1685	Metli_1684
Methanospirillum hungatei JF-1 DSM 864		Euryarchaeota	Methanomicrobia	Gc00350	Mhun_0876	Mhun_0875
Methanocorpusculum bavaricum DSM 4179		Euryarchaeota	Methanomicrobia	Gi11678	H575DRAFT_00474	H575DRAFT_00475
Methanolobus tindarius DSM 2278	(6)	Euryarchaeota	Methanomicrobia	Gi02920	MettiDRAFT_2866	MettiDRAFT_2865
Methanomethylovorans hollandica DSM 15978	(6)	Euryarchaeota	Methanomicrobia	Gi02921	Metho_0631	Metho_0630
Methanolobus psychrophilus R15		Euryarchaeota	Methanomicrobia	Gi13585	Mpsy_0587	Mpsy_0586
Methanocella arvoryzae MRE50 (RC-1) DSM 22066		Euryarchaeota	Methanomicrobia	Gc00528	RCIX2342	RCIX2341
Methanocella paludicola SANA E		Euryarchaeota	Methanomicrobia	Gc01163	MCP_0718 (MCPlv_0729)	MCP_0717
Methanomassiliicoccus luminyensis B10		Euryarchaeota	Methanomicrobia	Gi17673	n/a	n/a

## References for Experimental Verification

- (1) Gilmour, C.C., et al. 2011. Appl Environ Microbiol 77:3938
- (2) Graham, A.M., et al. 2012. Appl Environ Microbiol 78:7337
- (3) Brown, S.D., et al. 2011. J Bacteriol 193:2078
- (4) King, J.K., et al. 2000. Appl Environ Microbiol 66:2430
- (5) Kerin, E.J., et al. 2006. Appl Environ Microbiol 72:7919
- (6) Gilmour, C.C., et al. 2013. Environ Sci Technol 47:11810
- (7) Ranchou-Peyruse, M., et al. 2009. Geomicrobiol J 26:1