

Supplementary Material

Supplementary Table 1. Genome sequencing project information.

MIGS ID	Property	Term
MIGS-31 Finishing	quality	Finished
MIGS-28 Libraries	used	One genomic 6 kb pMCL Sanger library
MIGS-29 Sequencing	platforms	ABI3730
MIGS-31.2 Sequencing	coverage	8.0 Sanger
MIGS-30 Assem	blers	phrap
MIGS-32 Gene	calling method	Prodigal 1.4, GenePRIMP
GenBank	ID	CP001994
	GenBank Date of Release	April 12, 2010
GOLD	ID	Gc01255
	NCBI project ID	547558
Database:	IMG-GEBA	2502082111
MIGS-13	Source material identifier	DSM 5219 ^T
	Project relevance	GEBA

Supplementary Table 2. Classification and general features of *Mhp. mahii* strain SLP^T in accordance with the MIGS recommendations [36].

Evidence codes: TAS: Traceable Author Statement (i.e., a direct report exists in the literature); NAS: Non-traceable Author Statement (i.e., not directly observed for the living, isolated sample, but based on a generally accepted property for the species, or anecdotal evidence). These evidence codes are from the Gene Ontology project [74].

* In version 4.0 of the BMSB Taxonomic Outline [18] the class “*Methanomicrobia*” (including the orders *Methanomicrobiales* and *Methanosarcinales*) was created to replace the class *Methanococci*, whose definition seems to be in conflict with current analyses of complete genome data.

MIGS ID	Property	Term	Evidence code
		Domain <i>Archaea</i>	TAS [75]
		Phylum <i>Euryarchaeota</i>	TAS [76]
		Class <i>Methanococci</i> *	TAS [73]
	Current classification	Order <i>Methanosarcinales</i>	TAS [76]
		Family <i>Methanosarcinaceae</i>	TAS [77]
		Genus <i>Methanohalophilus</i>	TAS [2]
		Species <i>Methanohalophilus mahii</i>	TAS [2]
		Type strain SLP ^T	TAS [2]
	Gram stain	negative	TAS [2]
	Cell shape	coccoid	TAS [2]
	Motility nonm	otile	TAS [2]
	Sporulation negative		TAS [2]
	Temperature range	20 – 45 °C	TAS [3]
	Optimum temperature	35°C	TAS [2]
	Salinity	0.5 M – 3.5 M NaCl	TAS [3]
	Optimum salinity	1.2 – 2.0 M NaCl	TAS [3]
MIGS-22	Oxygen requirement	obligate anaerobic	TAS [2]
Carbon	source	methanol, methylamine, dimethylamine, trimethylamine	TAS [2]
	Energy source	see above	TAS [2]
MIGS-6	Habitat	saline to hypersaline anoxic sediments	TAS [2]
MIGS-15	Biotic relationship	unknown	

MIGS-14	Pathogenicity	none	TAS [78]
	Biosafety level	1	TAS [78]
	Isolation	water/sediment sample	TAS [2]
MIGS-4	Geographic location	Great Salt Lake (south arm), Utah, USA	TAS [3]
MIGS-5	Sample collection time	1985 or before	NAS
MIGS-4.1	Latitude – Longitude	41.177 – -112.502	NAS
MIGS-4.2			
MIGS-4.3	Depth	not reported	
MIGS-4.4	Altitude	not reported	
