

<b>ID</b>	<b>species</b>
Aboo	<i>Aciduliprofundum boonei</i> T469
Aful	<i>Archaeoglobus fulgidus</i> DSM 4304
Asac	<i>Acidilobus saccharovorans</i> 345-15
CKor	<i>Candidatus Korarchaeum cryptofilum</i> OPF8
Dkam	<i>Desulfurococcus kamchatkensis</i> 1221n
Hbut	<i>Hyperthermus butylicus</i> DSM 5456
Hjeo	<i>Halalkalicoccus jeotgali</i> B3
Hsal	<i>Halobacterium salinarum</i> R1
Hvol	<i>Haloferax volcanii</i> DS2
Meve	<i>Methanohalobium evestigatum</i> Z-7303
Mfer	<i>Methanothermus fervidus</i> DSM 2088
Mhun	<i>Methanospirillum hungatei</i> JF-1
Mkan	<i>Methanopyrus kandleri</i> AV19
Mlab	<i>Methanocorpusculum labreanum</i> Z
Mmar	<i>Methanococcus maripaludis</i> S2
Msed	<i>Metallosphaera sedula</i> DSM 5348
Msta	<i>Methanosphaera stadtmanae</i> DSM 3091
Mthe	<i>Methanosaeta thermophila</i> PT
Nequ	<i>Nanoarchaeum equitans</i> Kin4-M
Nmar	<i>Nitrosopumilus maritimus</i> SCM1
Pars	<i>Pyrobaculum arsenaticum</i> DSM 13514
Ptor	<i>Picrophilus torridus</i> DSM 9790
Ssol	<i>Sulfolobus solfataricus</i> P2
Taci	<i>Thermoplasma acidophilum</i> DSM 1728
Tbar	<i>Thermococcus barophilus</i> MP
Tpen	<i>Thermofilum pendens</i> Hrk 5

**Table S2.** Archaeal species used in this study.