



Supplementary Materials

Table S1. Overview of qPCR primers used in this study

Target Gene	Primers	Sequences (5'-3')	Target size (bp)	Annealing (°C)	Cycles	Reference
NC10 Phylum 16S rRNA	qP1F	GGGCTTGACATCCCACGAACCTG	201	63	40	[1]
	qP1R	CGCCTTCCTCCAGCTTGACGC				
ANME-2d 16S rRNA	DP397F	TGGCTGTCCAGCTRITYC	172	57	40	[2]
	DP569R	GRACGCCTGACGATTRAG				
<i>pmoA</i>	HP3F1	CCCAGTACTTCATGTGGGARAARAT	274	54	40	[3]
	HP3R1	GGGGGCCAGCCANRYCCARTT				
<i>mcrA</i>	<i>McrA</i> 159F	AAAGTGC GGAGCAGCAATCACC	186	62	45	[4]
	<i>McrA</i> 345R	TCGTCCCATTCTCTGCTGCATTGC				

References

- Ettwig KF, Van Alen T, Van De Pas-Schoonen KT, Jetten MSM, Strous M. Enrichment and molecular detection of denitrifying methanotrophic bacteria of the NC10 phylum. *Appl. Environ. Microbiol.* 2009;75:3656-3662. <https://doi.org/10.1128/AEM.00067-09>.
- Ding J, Ding ZW, Fu L, Lu YZ, Cheng SH, Zeng RJ. New primers for detecting and quantifying denitrifying anaerobic methane oxidation archaea in different ecological niches. *Appl. Microbiol. Biotechnol.* 2015;99:9805-9812. <https://doi.org/10.1007/s00253-015-6893-6>.
- Han P, Gu JD. A newly designed degenerate PCR primer based on *pmoA* gene for detection of nitrite-dependent anaerobic methane-oxidizing bacteria from different ecological niches. *Appl. Microbiol. Biotechnol.* 2013;97:10155-10162. <https://doi.org/10.1007/s00253-013-5260-8>.
- Vaksmas A, Jetten MSM, Ettwig KF, Lüke C. *McrA* primers for the detection and quantification of the anaerobic archaeal methanotroph '*Candidatus Methanoperedens nitroreducens*'. *Appl. Microbiol. Biotechnol.* 2017;101:1631-1641. <https://doi.org/10.1007/s00253-016-8065-8>.