Supplementary Data – Martin et al.

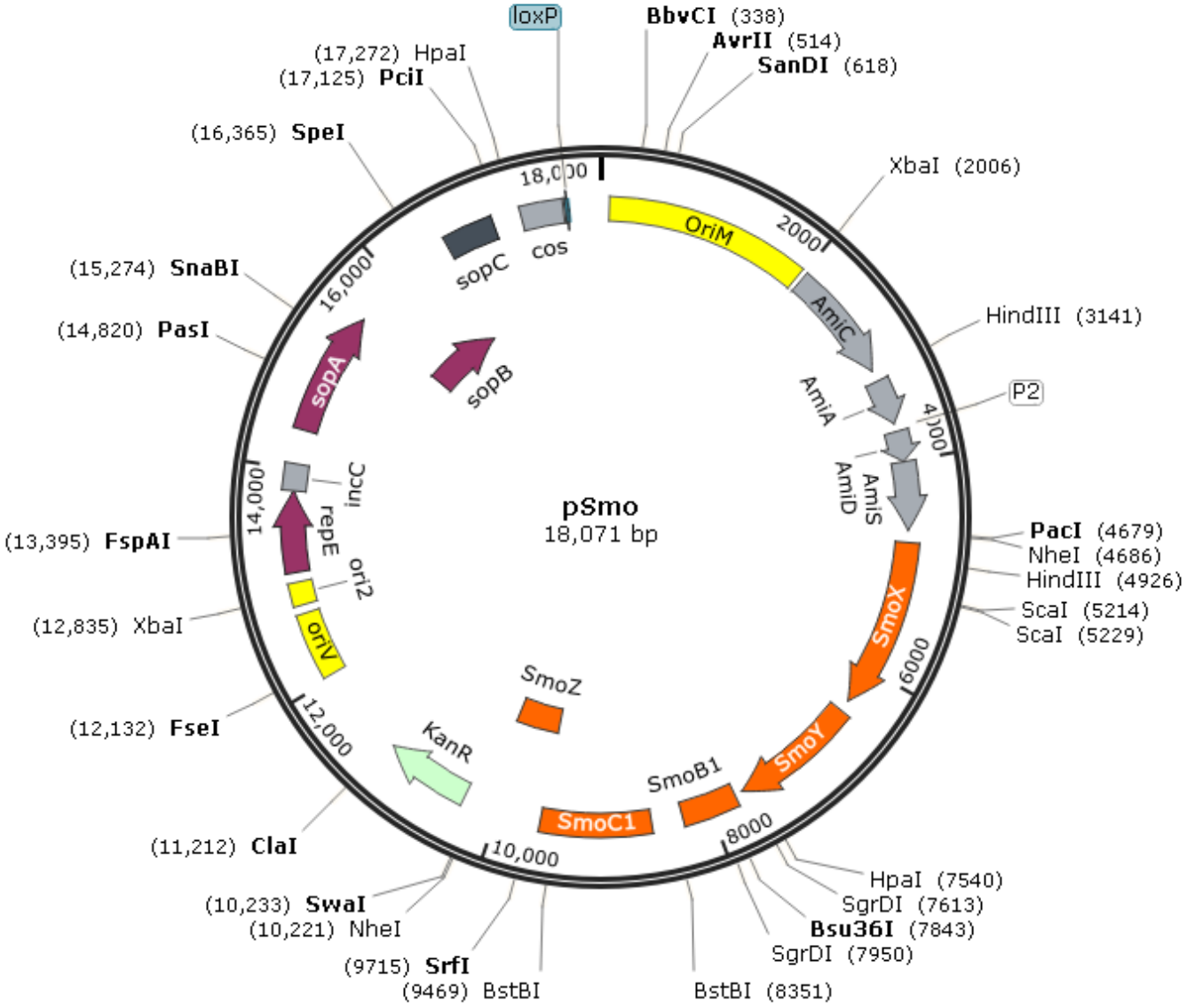
Supplementary Table 1. Pairwise amino acid identities (%) of group 3 SDIMOs.

	SmoX	**SmoY**	**SmoB1**	**SmoC1**	**SmoZ**
Mmo[1.]	52	37	39	38	42
Bmo[2.]	55	34	41	34	34

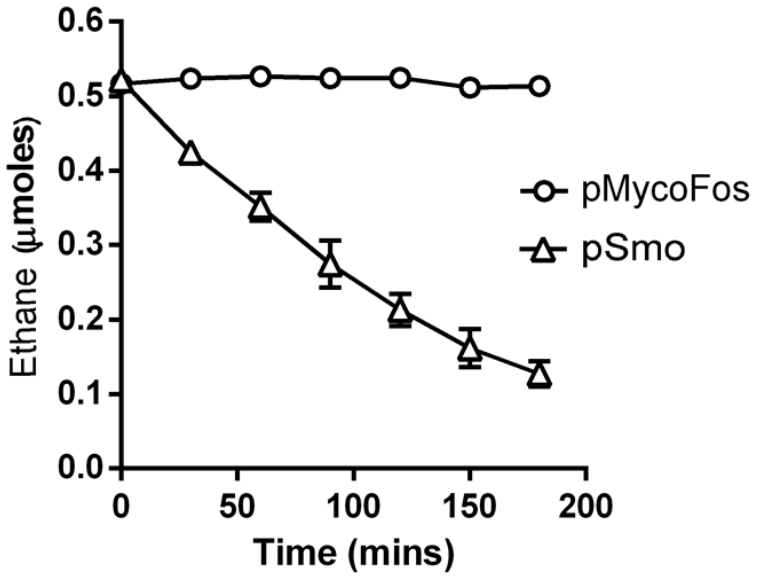
	MmoX[1.]	**MmoY**	**MmoB**	**MmoC**	**MmoZ**	**MmoD**
Bmo[2.]	65	43	53	39	38	13

1. Mmo subunits from *M.capsulatus* Bath.
2. Bmo subunits from *Thaeura butanivorans*.

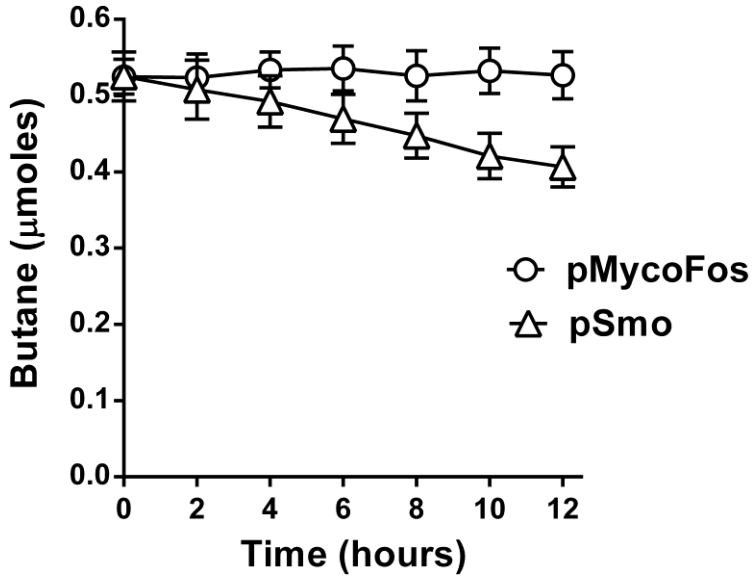
Supplementary Figure 1. Sequence of pSMO insert, confirming correct cloning of the *smoXYB1C1Z* genes. The *smo* genes sequence can be obtained from Genbank CP003054.1 or GU174751.2. Predicted start and stop codons and ribosome binding sites are underlined. The NheI sites used for cloning are underlined and highlighted in light blue.



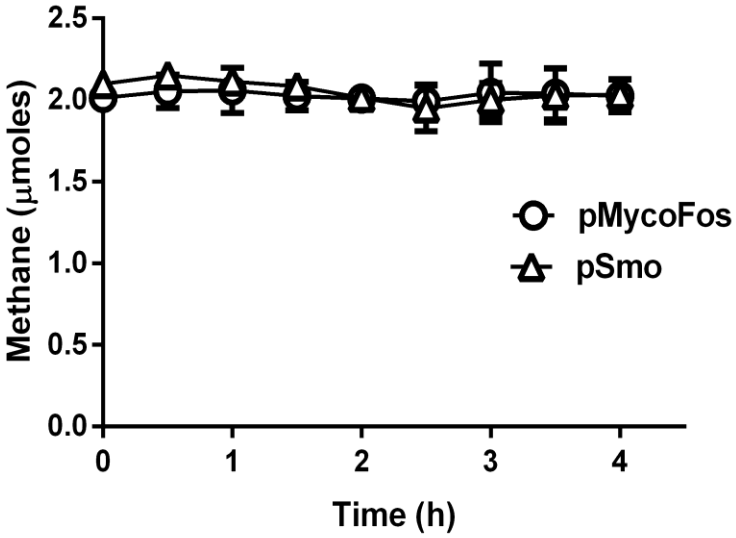
Supplementary Figure 2. Schematic of plasmid construct pSmo.



Supplementary Figure 3. Metabolism of ethane by cells of mc^2-155(pMycoFos) and mc^2-155(pSmo). Data are shown as the mean of three independent experiments, with error bars denoting the standard error of the mean (SEM).



Supplementary Figure 4. Metabolism of butane by cells of mc^2-155(pMycoFos) and mc^2-155(pSmo). Data are shown as the mean of three independent experiments, with error bars denoting the standard error of the mean (SEM).



Supplementary Figure 5. Test of methane metabolism with cells of mc^2-155(pMycoFos) and mc^2-155(pSmo). Data are shown as the mean of three independent experiments, with error bars denoting the standard error of the mean (SEM).