

	-CDEI-	-CDEII-	-CDEIII-	
AgCEN1	ATCACGTGAAA- TAAAT-		TCTTATA- TGTTTATATGTTCCGAAA- ATAAAAATAAGTTAT	208
AgCEN2	ATCATGTGACCG- TAAAC		TAATTTAT- TGATGGTATTTCCGAACTTATATTTAACTTAAAAAT	213
AgCEN3	TTCACGTGATAAATA- A		TCATTAT- TGTTTGTGTTTCCGAAA- ATATAAATGTTATTTTGG	211
AgCEN4	GGCACGTGACC- AATATC		TTAAATA- TGATGTGTGTTCCGAAATTATTTAAATTTTTAAT	209
AgCEN5	AGCACGTGACA- TAAAT-		ATAGATG- TGATACGATTTCCGAAACATAAAAAATTTT	204
AgCEN6	ATCACATGATCAATAAAA		TTATATA- TGATGTCTTTCCGAAAATATTTTTAAAAATACATA	211
AgCEN7	ATCACGTG- - - ATAAT	<b>160bp AT-rich</b>	TTTTGTA- TGTGTGTTTGTCCGAACTATAAAAAATGTTTAAA	212
EcymCEN1	ATCACATGATCATTATTT		T- - TTATT- TGTGTAAGGTTTCCGAACTAATTTTATTTATAAAT	209
EcymCEN2	ATCATGTGATAAAATATA		TAATACA- TGTTTAGATGTTCCGAAA- ATAAAAAT	199
EcymCEN3	TTCACGTGATATTTTTTA		TTATATAA- TGTTTTGATTTCCGAAAGGTTTTATTTTTACTAT	209
EcymCEN4	ATCACATGATACAAAATA		TAGGT- - - TGTTTATGATTTCCGAAAATAAAAAAAT	203
EcymCEN5	ATCACGTGCTTATCTAAA		T- ATAAAT- GTTTTTGTGTTCCGAAAGATAAAATAAAT	203
EcymCEN6	AACACGTGATA- TATTTT		TTTTGTA- TGTTTTGGAGTCCGAAA- ATAAATAT	198
EcymCEN7	ATCACATGACTTCAAAAA		TAATATTT- TGTTTTGTTTCCGAACTAATTTATAAGTTAATAATGTATT	216
EcymCEN8	ATCACGTGTAATAAAA- A		TAAAAA- CGTATATTGTTCCGAACTATAAAAAATAGTTTATTAAT	213

**Figure S1** Centromere DNA Element (CDE) conservation in *Emothecium*. CDEI is characterised by the palindrome CACGTG. CDEII is a 160bp AT-rich region, whereas CDEIII has a central conserved motif of TTCCGAA in a 25bp core sequence. These point-like centromeres differ from *S. cerevisiae* in the length of the CDEII element.