

Exon 1
 A T G G T T C G T C G C A C C A G C C C G A C T C G A T C G G C C G C T C T T T T T T G G C G T G C T G T T T T T G C G T C T G C T T T T T G C G C A G C A C C C T A C T G A C G C G C A C C C A G G C C G G A T T C A C T T A C C G A G G A G C

Intron 2 **Exon 2**
 A D S L T E E

Intron 1
 A G G T C T C C G A G T T C A A G G A G G C C T T C T C T C T G T T T G T A C G T T T T T C C C C T G G C A T T T G C C C T G G C G T C T G C C C G G G G C C A T C T G G T C C C G G G C T C G G C C C C C T T T T T T C C T C T C G G C C G G A C G T T T T G C T A A C C

Intron 3 **Exon 3**
 Q V S E F K E A F S L F
 CL2F **Exon 3**

Intron 4
 G Q I T T K E

Intron 3
 G G C C G C G C T T G C C G C G C T T G A T A G G A C A A G G A T G G C C G A T G T C C G T A G A C C G T C C A C C C T C T C C T G T G G C G G G T G A C G G G T T G T G C T G A C A C A T T T C C C G G A C A G C C C A G T C A C C A C C A A G G A G

Intron 4
 D K D G D

Intron 5
 C T C G G C A C G G T C A I G C G C T C G T C G G C C A G A A C C C G T C C G A G T C C G A G C T G C A G G A C A T G A T C A A C G A A C G G T G G A C G C C G A C A A C A A C G G T A C C A T T G A C T T T C C G G G T A T G T C T C T A G A C G G G C G

Exon 5
 L G T V M R S L G Q N P S E S E L Q D M I N E V D A D N N G T I D F P

Exon 6
 C G C G G C G T T C C G T C C C G T C T T T G T C T T G T C T T T T T T C T G G C C T C G T G C T G A C C G G G T G T G G G C A G A G T T C C T C A C G A T G A T G G C A C G C A A G A T G A A G G A C A C C G A C T C G G A G G G A G A G A T T

Exon 6
 E F L T M M A R K M K D T D S E E I

Exon 7
 C G C G A G G C A T T T A A A G T C T T T G A C C G G A C A A C A C G G C T T C A I C T A C G C G G C T G A G C T G C G C C A C C G T A T G A C C G A C C A T T G G C G A G A A G C T G A C G G A C C G A G G T C G A C G A T G A T C C G C G A

Intron 6
 R E A F K V F D R D N N G F I S A A E L R H V M T T I G E K L T D E E V D E M I R E

Exon 7
 G C C G A C C A G G A C G G C C G G A T C G A C T G T G A G T T C C G A C T T C T T G C T G C A G C A G C A G T G A C A G C G G G A C A A G C T A A C G G G C G G T A C A G A C A C A C G A T T T G T G C A G

Intron 7
 A D Q D G D G R I D
 CL2R
 Y N E F V Q

CL2R
 C T C A T G A T G C A G A A A T A A
 L M M Q K *

Online Resource 3 Annotated map of the complete calmodulin gene of *Grosmannia clavigera* (isolate kw1407), based on the genome sequence (GL629794) by Diguistini et al. (2011). The map was constructed by Yin et al. (2014) and the annotated sequence re-deposited in Genbank as KP171178. Primers used for amplification in the study by Yin et al. (2014) are indicated with arrows. # indicates the position of intron 5 absent in *G. clavigera*, but present in some other species in the Ophiostomatales (De Beer and Wingfield 2013). * represents the stop codon.

De Beer ZW, Wingfield MJ (2013) Emerging lineages in the Ophiostomatales. In: Seifert KA, De Beer ZW, Wingfield MJ (eds) The Ophiostomatoid fungi: Expanding Frontiers. CBS Press, Utrecht, The Netherlands, pp 21-46
 Diguistini S, Wang Y, Liao NY, et al. (2011). Genome and transcriptome analyses of the mountain pine beetle-fungal symbiont *Grosmannia clavigera*, a lodgepole pine pathogen. PNAS 108:2504-2509.
 Yin M, Duong TA, Wingfield MJ, Zhou XD, De Beer ZW (2014). Taxonomy and phylogeny of the *Leptographium procerum* complex, including *L. sinense* sp. nov. and *L. longiconidophorum* sp. nov. Antonie van Leeuwenhoek doi:10.1007/s10482-014-0351-9