

Table 1S. Compounds isolated from *A.nidulans* strains

Compounds <i>cfwA</i> ⁺	Weight	Compounds <i>cfwA2</i>	Weight
Ethyl acetate total extract	1.6 g/l	Ethyl acetate total extract	1.1 g/l
CLS12-1	18 mg		
CLS12-2	26 mg		
CLS12-3	35 mg	CLS2-3	52 mg
CLS12-4	45 mg		
CLS12-5	52 mg		
CLS12-6	35 mg	CLS2-6	6 mg

Table 2S. ¹H NMR and ¹³C NMR main spectral data for dehydroaustinol

C	δ	Multiplicity DEPT*	¹ H/ ¹³ C connectivity**	Multiplicity ¹ H NMR***
1	150.9	CH	H-1 (δ,6.90)	d (10.2 Hz)
2	116.2	CH	H-2 (δ,5.91)	d (10.2 Hz)
3	163.5	C	-	
4	86.4	C	-	
5	44.3	C	-	
6	26.9	CH ₂	H-6a (δ,1.72); H-6b (δ, 1.78)	m, td (4.6, 13, 27.7 Hz)
7	26.5	CH ₂	H-7a (δ, 2.1); H-7b (δ,1.34)	td (4.6, 13, 27.7 Hz) dt (3, 13 Hz)
8	50.1	C		
9	90.1	C		
10	140.9	C		
11	75.0	CH	H-11(δ, 4.37)	d (4.0 Hz)
12	16.7	CH ₃	H-12 (δ, 1.27)	s
13	124.3	CH ₂	H-13a (δ, 6.33); H-13b (δ, 5.76)	s s
14	25.7	CH ₃	H-14 (δ, 1.53)	s
15	23.7	CH ₃	H-15 (δ, 1.51)	s
1'	114.5	CH ₂	H-1'a (δ, 5.84); H-1'b (δ, 5.67)	s s
2'	137.4	C		
3'	83.5	C		
4'	169.0	C		
5'	76.1	CH	H-5' (δ, 5.27)	q (6.8 Hz)
6'	84.9	C		
7'	64.0	C		
8'	167.2	C		
9'	19.8	CH ₃	H-9' (δ, 1.71)	s
10'	13.54	CH ₃	H-10' (δ, 1.65)	d (6.8 Hz)
OH			δ, 2.30	d (4.0Hz)

500 Mhz in CDCl₃, δ in ppm. *Multiplicity from DEPT ¹³C NMR experiment. **Assignments were confirmed by ¹H COSY, DEPT, HSQC, HMQC and HMBC experiments. *** Multiplicity from ¹H NMR experiment. Coupling constants (**J** in Hz) indicated in parentheses.

Aoryzae BAE65284 324AA 1 -----MQPPQDES-----SNCMVRWYIDTRDITATTSLPLILETLQPPDQESAKREY 47
Aterreus ATEG_09695 328AA 1 -----MASIQQPT-----NTPLTRWYMDMRNLTN-HPPLPLLDTLKPTQEAVTREFY 46
Afumigatus NpgA 359AA 1 -----MGSAQNER-----IPSLTRWYIDTRQLTVTNPSLPLLEALQPSDQEAVKREY 47
Anidulans CfwA/NpgA 344AA 1 -----MVQDTSSAST-----SPILTRWYIDTRPLTASTAALPLILETLQPADQISVQKY 49
Gzeae EAA71979 292AA 1 MSQ----TQSSPTAIQWVIDTRPLWPLALETKDLTTS--ASRALSLLTTEEQAAVMRY 53
Cimmitis EAS35481 351AA 1 -----MASSAETKEPCLSRGLTRWYMDMRGLSASTSLPLLFTLQPDQEAVKREY 52
Ncrassa EAA36485* 346 AA 1 MSDNKMSEPPNPNVVIQWILDTRSWFSPAAKTRDLE---ASRPLSLLTPTERASVLKYF 56
Mgrisea MG03046 325AA 1 MSS-----ESSPEIIQWLVDTRKLWPEVAETKQLETFPSSSRALSVLPDDERTAVLKVY 54
Cglobosum EAQ89573 352AA 1 MSD---AETPNKPVIAQWILDTRSWYPEVTQTKOLETH--AARAFALLPPTSRAPIILRVH 55

Aoryzae BAE65284 324AA 48 HLKDKHMSLASNLLKYLFIHRTCR-----IPWNQITISRTPPAPHRPYPFNAAGFI 97
Aterreus ATEG_09695 328AA 47 HQKDRQMSLASNLLKYLFIHRTCR-----IPWPEIIISRTPPAPHRPFCFIPA--- 93
Afumigatus NpgA 359AA 48 HLRDRHMSLASNLLKYLFIHRTSC-----IPWNKISISRTPPDPHRPFCFIPS-PA 96
Anidulans CfwA/NpgA 344AA 50 HLKDKHMSLASNLLKYLFIHVRNCR-----IPWSSIVIISRTPPDPHRPCYIPPSGS 99
Gzeae EAA71979 292AA 54 HVRDAKLALASALLKRYVISRFCQ-----VPWSEAKTI--RDVR-----TKPV 94
Cimmitis EAS35481 351AA 53 HLADRHMSLASCLLKYLFIRHRTCH-----VPWSRIVIISRTPPAPHRPFCYIPLP-- 100
Ncrassa EAA36485* 346 AA 57 HVRDAKMLASALLKRYAARLAG-----VAWSSTPG-FTRDERT-----TKPI 100
Mgrisea MG03046 325AA 55 FARDAKMSLASHLLKHYVSSKGH-----VPWKETTIT--RNAR-----TKPV 95
Cglobosum EAQ89573 352AA 56 HARDAKMALASALLKHYAVARLMSTDTAASATKAAAWSATLAPFTRDAR-----TKPV 109

Aoryzae BAE65284 324AA 98 QTAATDKPII--NIEFNVSHQASLVALAGTILPPSSNNDSIAPTNTVITNPNPTSTPASSI 155
Aterreus ATEG_09695 328AA 94 ADNPRAAALP--TLEFNVSHQASLVALAGTSTP-SPASTQOKERLLTAAPDPAATPLPSL 150
Afumigatus NpgA 359AA 97 LTEATDEPII--GIEFNVSHQASLVALAGTIIP-QSHGASPNPTTVFANPSPSPVPAHSV 153
Anidulans CfwA/NpgA 344AA 100 QEDSKFDGYTGINVEFNVSHQASMAIAGTAFTPNSSGDS-----KLK 142
Gzeae EAA71979 292AA 95 FISP-SGDEP--LIFNIHQAGLAVLLAVHNP-----PEG----- 126
Cimmitis EAS35481 351AA 101 SADGGENKILINVEFNVSHQASLVALAGYIIPGGSPTSASAANTQISPSPTET--PAT 158
Ncrassa EAA36485* 346 AA 101 WRDPATGAQP---VAFNVSHQAGIVALVAVADY-----PGPGAQSEAG-----AE 142
Mgrisea MG03046 325AA 96 YVDPNTGRQP---VAFNVTHQAGIVALVAVAGD-----DSGDAG-----A 132
Cglobosum EAQ89573 352AA 110 WLDAPASGAQP---VAFNVSHQAGVVAIVAVAGYRAVVGDDGGSDGVDGVD-----GVG 159

Aoryzae BAE65284 324AA 156 PQVGIDITCVNERRN-----TPETRQALE-----DLHGVS-----HIG---- 189
Aterreus ATEG_09695 328AA 151 PQVGIDITCVNERRAD-----ATPTLALNEYVDIFAEVFSARELETIKS----TAAR--- 199
Afumigatus NpgA 359AA 154 PQVGIDITCVDERHART--SAPSTRDQLAGYVDIFAEVFSARELETIKS----LGGRFPA 208
Anidulans CfwA/NpgA 344AA 143 PEVGIDITCVNERQGR--NGEERSLESRLQYIDIFSEVFTAEMANIRR----LDGVSS 196
Gzeae EAA71979 292AA 127 LAVGVDVVCPTERRDRDLRSLA--DEGWPSFVDMHADVFPGPEVAALKHMNP----- 176
Cimmitis EAS35481 351AA 159 PQVGIDITCTDERARRGKSSIPTTEVDLCSFIDIYAEVFSPREIEIMKSNPTSQHSQAAV 218
Ncrassa EAA36485* 346 AA 143 VEVGVDVVCSTERRDRDQLIR--KEGWGSFVDMHADVFAMGETTYLKYQVLSVAVPGLVE 200
Mgrisea MG03046 325AA 133 IDVGIDVVCSTERRDRHSMIAQSGDGWARFVDMHADVFAPAEANYLKFVVPQGAARLLN 192
Cglobosum EAQ89573 352AA 160 VEVGVDVVCSTERRARDHMLA--GEGWPAFVDMHADVFAPGEVAYLKHVRVLEAVPGLAA 217

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Aoryzae BAE65284 324AA 189 -----NDEDG-LVEYGFRLFYTYWALKEAYIKMTGEALLAPWLRELVFTNVLAPEPAGR 242
Aterreus ATEG_09695 328AA 199 -----END--PAYGYRLFYAFWALKEAYIKMTGEALLAPWLRELEFTDVRAPPEPRVQ 249
Afumigatus NpgA 359AA 208 -----DAQDGEAVEYGLRFLFYTYWALKEAYIKMTGEALLAPWLRELEFTDVIAPEPAPA 262
Anidulans CfwA/NpgA 344AA 196 -----SLSADRLVDYGYRLFYTYWALKEAYIKMTGEALLAPWLRELEFSNVVAFAAVAE 250
Gzeae EAA71979 292AA 176 -----GTAISERDCALRYFYALWCLREAYVKMTGDALLASWLKDLMRDFA--PPED-- 226
Cimmitis EAS35481 351AA 218 -----PLSLEGSIQYRLRFYTYWALKEAYIKMTGEALLAPWLRLQLEFVNVPPEPAMD 272
Ncrassa EAA36485* 346 AA 201 RGAGGGPPTPEQVADGKLRAFYALWALREAYVKLTGEALLAEWLGELEFRYFR--PSWPTP 259
Mgrisea MG03046 325AA 192 -----GTSSELVDYNLRSFYTLWALREAYVKMTGEALLASWLCELEFRFNPEPIPSG 245
Cglobosum EAQ89573 352AA 217 ---AAGAAATVERVSDAKLRAFYTILWALREAYVKLTGEALLAEWLKLEFRGFR--PPAPTA 273

Aoryzae BAE65284 324AA 242 -----HLHTWGEPYTGKVTWLYGKEVEDVRLLEVVAFENDYLIATAARGGGIG 289
Aterreus ATEG_09695 328AA 249 -----HPYTGVRTWLYGKLEVEDVRIEAFEDDYLIATAARGGKVG 290
Afumigatus NpgA 359AA 263 PGQG-----SAENWGEPYTGKVIWLYGKREVEDVRIEVVAFETGYIFATAARAGGLG 313
Anidulans CfwA/NpgA 344AA 251 SGD-----SAGDFGEPYTGVRTTYLYKNLEVEDVRIEVAALGGDYLFATAARGGGIG 300
Gzeae EAA71979 292AA 226 -----MRKVQEAWLRGIKVDGVDLKLMPFLEEYMIATAVRHGLN- 265
Cimmitis EAS35481 351AA 273 G-----ERPAGWSPRTDQVVMYQKVENVRLETVSGKEYVVAATATRGPLG 320
Ncrassa EAA36485* 346 AA 260 AWDVPAVETKEGEEGEDAQVLRKFEIRFRGKVEDVNMCLRSMGPDYMVATAVTRPEDP 319
Mgrisea MG03046 325AA 246 AGSMAGSL-----EGDDEAIVRDHEIWFQGKLVDDANVCLRALGPDYVVCATAMRTPAEK 299
Cglobosum EAQ89573 352AA 274 GWDVPGRE-----EEGE---VVRDIEIWFKRRVEDVNMCLRSMGEDYMIATAVTRPGRK 325

Aoryzae BAE65284 324AA 290 WRS---EGDG----ADPWQRLEKIDIEKDVRPCATGVCQCLK--- 324
Aterreus ATEG_09695 328AA 291 SAASG--GGEG----IDGWGLRRITIE-DVAPCARGQCQCLDGC- 328
Afumigatus NpgA 359AA 314 AESRPL-SRDAGVAVSVDWRMHMEKIDIDRDIPCATGVCQCTKKQP 359
Anidulans CfwA/NpgA 344AA 301 ASSRPGGGPDGSGIRSQDWPFRPFKLDIERDIQPCATGVCNCLS-- 344
Gzeae EAA71979 292AA 265 --GET-----IDLKDFQSLDIEEILTFGERLPSS----- 292
Cimmitis EAS35481 351AA 321 TGLAT-----WGDFRSIDIDADVAPCALGGALNLEP-- 351
Ncrassa EAA36485* 346 AA 320 NVGLR-----WRLGPYETLALDDLNFADSAV----- 346
Mgrisea MG03046 325AA 300 EKGLG-----WDMGPFKVLISIDEIVKFAEEQ----- 325
Cglobosum EAQ89573 352AA 326 EDGLG-----WELGPYEVLSLDQVLDFAEGSG----- 352

Figure 1S

Fig. 1S. The leucine replaced by an arginine in *A. nidulans* CfwA2 is part of a region highly conserved in fungal PPTases. Fungal PPTases from indicated Ascomycetes were aligned with ClustalW. Sequences are identified by species name, followed by protein name or GenBank accession number and protein size. The conserved leucine (L) replaced by an arginine (R) in *A. nidulans* mutant PPTase CfwA2 is indicated with a star. The asterisk indicates that *Neurospora crassa* (*Ncrassa*) protein was manually deduced as EAAA36485 is missing the first exon and incorrectly annotated as a 284 amino acid protein. Organism names are: *Aoryzae*, *Aspergillus oryzae*; *Aterreus*, *Aspergillus terreus*; *Afumigatus*, *Aspergillus fumigatus*; *Anidulans*, *Aspergillus nidulans*; *Gzeae*, *Gibberella zeae*; *Cimmitis*, *Coccidioides immitis*; *Mgrisea*, *Magnaporthe grisea*; *Cglobosum*, *Chaetomium globosum*.