

**Table S6:** Terminology and description of genes located within the biosynthetic gene cluster of *Fusarium circinatum* investigated in this study (49 000-101 000 bp on Chromosome 3).

Gene name	Location (bp)	InterPro term	Description	GO term	Significance in cluster
FCIRG_03388	138-887	IPR013024 IPR009288	Butirosin biosynthesis AIG2-like domain	None predicted	Biosynthetic gene
FCIRG_03387	1568-3212	None predicted	None predicted	None predicted	
FCIRG_03386	4360-5027	None predicted	None predicted	None predicted	
FCIRG_03385	5074-5293	IPR002085 IPR011032 IPR020843 IPR013154 IPR013114 IPR016040	Alcohol dehydrogenase, zinc type Alcohol dehydrogenase GroES chaperone 10-like domain Polyketidesynthase enol reductase Alcoholdehydrogenase-C-terminal domain NAD(P) binding domain	5514 8270 16491	Biosynthetic gene
FCIRG_03384	7430-8212	IPR002085 IPR011032 IPR020843 IPR013154 IPR0131149 IPR016040	Alcohol dehydrogenase, zinc type Alcohol dehydrogenase GroES chaperone 10-like domain Polyketidesynthase enol reductase Alcoholdehydrogenase-C-terminal domain NAD(P) binding domain	5514 8270 16491	Biosynthetic gene
FCIRG_03383	9495-11000	IPR000277 IPR015421 IPR015424 IPR006235	Cys/Met metabolism, pyridoxal phosphate-dependent enzyme Pyridoxal phosphate-dependent transferase, major region, subdomain 1 Pyridoxal phosphate-dependent transferase O-acetylhomoserine/O-acetylserine sulfhydrylase	30170 3824 30170 6520; 16765	Biosynthetic gene
FCIRG_03382	11657-15022	IPR000873 IPR009081 IPR013120 IPR016040	AMP-dependent synthetase/ligase Acyl carrier protein-like Male sterility, NAD-binding NAD(P)-binding domain	3824; 8152	Biosynthetic gene
FCIRG_03381	15863-17316	IPR008259 IPR012133 IPR013785	FMN-dependent alpha-hydroxy acid dehydrogenase, active site Alpha-hydroxy acid dehydrogenase, FMN-dependent Aldolase-type TIM barrel	16491; 55114 10181; 16491; 55114 3824	
FCIRG_03380	19521-20821	IPR00138 IPR007219	Zn <sub>2</sub> C <sub>6</sub> fungal type DNA binding domain Transcription factor, fungi		
FCIRG_03379	25244-27122	IPR011701 IPR020846	Major facilitator superfamily Major facilitator superfamily domain	16021; 55085	Transport related gene
FCIRG_03378	28330-29954	IPR007219	Transcription factor domain, fungi	3677; 5634; 6351; 8270	
FCIRG_03376	30034-32848	IPR000073 IPR029058 IPR013083	Alpha/Beta hydrolase fold-1 Alpha/Beta hydrolase fold Zinc finger, RING/FYVE/PHD-type		
FCIRG_03375	34353-34841	IPR019791 IPR001128 IPR010255	Haem peroxidase, animal Cytochrome P450 Haem peroxidase	5506; 16705; 20037; 55114 4601; 6979; 20037; 55114	