

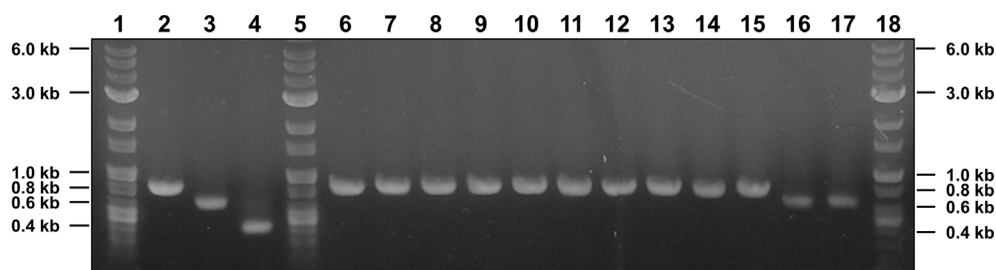
Supplementary Table 1. Continued

Chr. no. (No. of clusters)	BGC ^a	Metabolite	Signature ^b	Cluster size (kb)	<i>F. vorosii</i> ^c				<i>F. asiaticum</i> ^c
					FvRN1	FvW15A1	CBS 119177	CBS 119178	KCTC 16664
	C53	Bostryocoidins	PKS3	36.4	+	+	+	+	+
	C52			69.1	+	+	+	+	+
			Total		78	79	76	79	80

^aBGC: Biosynthetic Gene Cluster; Cluster designations C01 to C76 were previously described (Sieber et al., 2014; Adpressa et al., 2019; Westphal et al., 2021), C77 to C88 are newly designated in our previous study (Jeong et al., 2023), and C89 is newly designated in this study.

^bKey enzymes were identified using antiSMASH v.6.0.1 and manually curated (Adpressa et al., 2019; Hansen et al., 2015). NPS, non-ribosomal peptide synthetase; PKS, polyketide synthase; T3PKS, type III polyketide synthase; CDPS, cyclodipeptide synthase; TPS, terpene synthase; STC6, stanniocalcin 6.

^c+ , genome of each strain includes this secondary metabolite gene cluster; – , genome of each strain does not include this secondary metabolite gene cluster; ψ , genome of each strain includes the cluster in which the key enzyme was pseudogenized or 1/3 of the clusters were deleted.



Supplementary Fig. 1. Agarose gel electrophoresis for amplified *TRII2* gene of Fv strains. Amplified *TRII2* gene of *Fusarium vorosii* (Fv) strains were separated using 1% agarose gel electrophoresis at 100 V for 25 min. The expected PCR products size for nivalenol (NIV), 15-acetyl-deoxynivalenol (15ADON), and 3-acetyl-deoxynivalenol (3ADON) type were about 840 bp, 670 bp, and 410 bp, respectively. Lanes 1, 5, and 18, 1 kb DNA ladder; lane 2, *F. asiaticum* KCTC 16664, positive control for NIV type; lane 3, *F. graminearum* KCTC 16659, positive control for 15ADON type; lane 4, *F. graminearum* KCTC 16661, positive control for 3ADON type; lane 6, *F. vorosii* WN031; lane 7, *F. vorosii* WN037; lane 8, *F. vorosii* WN038; lane 9, *F. vorosii* CN008; lane 10, *F. vorosii* CN009; lane 11, *F. vorosii* CN010; lane 12, *F. vorosii* CN011; lane 13, *F. vorosii* WN036; lane 14, *F. vorosii* RN1; lane 15, *F. vorosii* RN030; lane 16, *F. vorosii* W15A1; lane 17, *F. vorosii* B15A6. Lanes 6-15 are NIV type, and lanes 16 and 17 are 15ADON type.

References

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