

**Supplementary data:**

*KpnI* *XhoI* *BamHI*
D A G

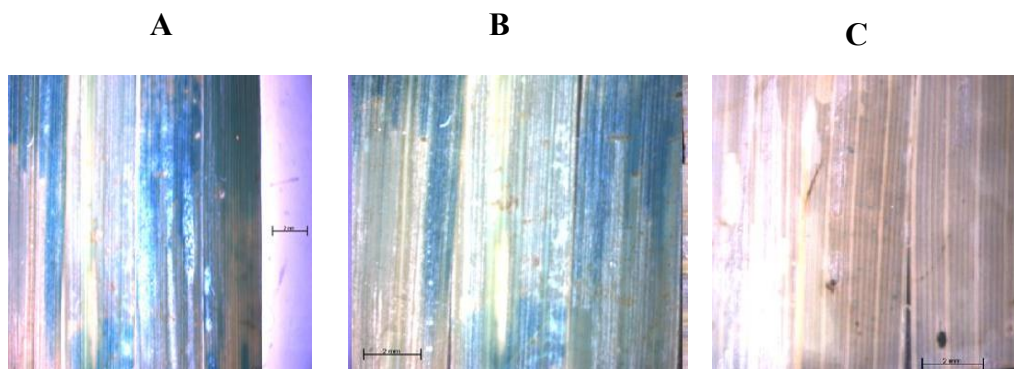
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K I T C

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*SmaI* *HindIII* *SpeI* *KpnI*

**Figure S1:** Sequence of coat protein (CP) (In Red) and Helper component proteinase (Hc-Pro) (In Blue) containing the conserved motifs of both genes fused together. Multiple unique restriction sites were added in the start and end of fused sequence. Respective sequence was synthesized from GeneArt™ Gene Synthesis for further cloning into Hairpin vector.



**Figure S2:** GUS expression assay in the Ubi-hpCP:Hc-Pro transgenic rice leaves. In the representative images, leaves of the rice plants transformed with the empty vector control (A, B) and those transformed with Ubi-hpCP:Hc-Pro (line #3) (C) were bombarded with 35S-GUS:CP:Hc-Pro fusion construct, and stained with X-Gluc. Prominent GUS expression (blue spots) was detected in the empty vector control leaves but GUS expression was hardly discernable in the leaves derived from rice plants transformed with Ubi-hpCP:Hc-Pro, indicating that GUS silencing was induced by the Ubi-hpCP:Hc-Pro transgene. Scale bar = 2 mm. The experiment was repeated for three times.